## **EPA Jacket 83529-84**

## PROCESSING REQUEST

| Reg # 83529-84  | Decision # 529603  |
|---|--|
| Description: New Produc   | t  |
|   | ·  |
|   |  |
| Material Available B  | ectionically (see PPLS):   |
| Electronic Label/Letter Dat   | ced  |
| Other:  |  |
| Material Sent (see Jacket)  |  |
| Stamped Label/Letter Date   | ed   |
| Notification Dated  |  |
| New CSF(s) Dated 5/1  | 6/2017   |
| Other:  |  |
| and clipped together, NOT STAPLED.<br>materials to staff in the Information<br>jacket is full or only available as an i | terials in the jacket. It must be well organized Then give the jacket with the coversheet and Services Center (ISC) (Room S-4900). If a mage, please file materials in a new jacket and er information please call 703-605-0716. |
| Reviewer: Emily Schmid  |  |
| Division: RD/HB   |  |
| Phone: 347-0189   | Date: 10/17/17   |



#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

83529-84

EPA Reg. Number:

Date of Issuance:

9/27/17

NOTICE OF PESTICIDE:

X Registration

\_\_\_ Reregistration (under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Sharda Acetochlor 33% CS

Name and Address of Registrant (include ZIP Code):

Anna Armstrong Sharda USA LLC P.O. Box 640 Hockessin, DE 19707

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Sincerely,

Poly

Reuben Baris, Product Manager 25
Herbicide Branch, Registration Division (7505P)

Office of Pesticide Programs

EPA Form 8570-6

High statement of a till the brashed of PASSAGE

- 2. You are required to comply with the data requirements described in the DCI identified below:
  - a. Acetochlor GDCI-121601-1660

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1">http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1</a>

- 3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 83529-84."
- 4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

Basic CSF dated 5/16/2017

If you have any questions, please contact Emily Schmid at 703-347-0189 or by email at schmid.emily@epa.gov.

Enclosure

GROUP

15

**HERBICIDE** 

# Sharda Acetochlor 33% CS ABN: Arrest CS

Encapsulated Herbicide for Weed Control in Field Corn, Production Seed Corn, Cotton, Peanuts, Forage or Grain Sorghum (Milo), Soybeans, and Sugar Beets

| ACTIVE INGREDIENT:   | WT. BY % |
|--|----------|
| Acetochlor*  | 33.0%    |
| OTHER INGREDIENTS:   |          |
| TOTAL:   |          |
| *Contains 3.0 lbs./gal. of 2-chloro-N-ethoxymethyl-N-(2-ethyl-6-methylphenyl) acetamide. |          |

## KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

|                            | FIRST AID   |
|----------------------------|---|
| IF ON SKIN OR<br>CLOTHING: | <ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>   |
| IF INHALED:                | <ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>   |
| IF IN EYES:                | <ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul> |
|                            | HOTLINE NUMBER  |

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.

[Optional referral statements when booklets and container labels are used:

See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions For Use.

See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for complete Directions For Use.]

EPA Reg. No. 83529-IU

**EPA Est. No. XXXXX-XX-XXX** 

| Manufacture |   |    |   |   |    | _ | <u> </u> |
|-------------|---|----|---|---|----|---|----------|
| Shard       | a | US | A | L | LC | S | [U]      |
|             |   |    |   |   |    |   |          |

7217 Lancaster Pike, Suite A Hockessin, Delaware 19707

Net Contents: [Gallons/Liters]

ACCEPTED

9/27/2017

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No.

83529-84

#### **PRECAUTIONARY STATEMENTS**

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating drinking, chewing gum, using tobacco, or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any water proof material
- Shoes and socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### ENGINEERING CONTROL STATEMENT

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- Wash hands after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- · Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the groundwater is shallow, may result in groundwater contamination.

Acetochlor has properties that may result in surface water contamination via dissolved runoff and runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Not for Use in Nassau and Suffolk Counties in New York State.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- · Chemical-resistant gloves made of any water proof material
- Shoes plus socks

#### RESISTANCE MANAGEMENT

Acetochlor is classified as a Group 15 herbicide. Some pests are known to develop resistance to herbicides that have been used repeatedly. While the development of weed resistance is well understood, it is not easily predicted. Therefore, herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If weed resistance should develop in the area, this product used alone may not continue to provide sufficient levels of pest control. If the reduced levels of control cannot be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high pest pressure, a resistant strain may have developed.

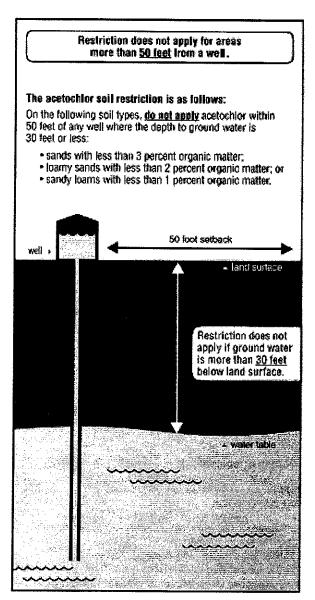
To reduce the potential for pesticide resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when pests are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

#### INTEGRATED WEED PEST MANAGEMENT

Integrate Sharda Acetochlor 33% CS into an overall weed management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

#### PRODUCT INFORMATION

**Sharda Acetochlor 33% CS** is an encapsulated herbicide to be applied pre-plant, at-planting, pre-emergence, or post-emergence to crops listed on this label to control annual grasses and broadleaf weeds listed in the "**WEEDS CONTROLLED**" section of this label. This product will not control seedlings that have emerged. Read and carefully observe precautionary statements and all other information appearing on the labeling of all products used in mixtures and sequential treatments.



#### **Use Restrictions:**

Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the groundwater is shallow, may result in groundwater contamination. On the following soil types, do not apply this product within 50 feet of any well where the depth to groundwater is 30 feet or less: sands with less than 3 percent organic matter; loamy sands with less than 2 percent organic matter; or sandy loams with less than 1 percent organic matter. See the figure for additional clarification.

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain a minimum of 110 percent of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100 percent of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Prior to application, evaluate the soil conditions carefully to select the correct label rate.

The use rates of **Sharda Acetochlor 33% CS** and other herbicides labeled for tank mixture uses with this product vary with soil texture. Unless soil texture is specifically listed, the use rate tables throughout this label refer to the three soil texture groups: coarse, medium and fine.

#### Soil Types:

- Fine: Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay
- Medium: Loam, Silt Loam, Silt, Sandy Clay Loam
- Coarse: Sand, Loamy Sand, Sandy Loam

Application Use Rates: The use rates listed throughout this label are given in volume (fluid ounces or quarts) of Sharda Acetochlor 33% CS per acre. The maximum allowed application use rates listed, take into account use of this product combined with the use of any and all other herbicides that contain the active ingredient acetochlor (whether applied alone or in tank mixture), on a basis of total pounds of acetochlor per acre. If more than one acetochlor-containing product application is made to the same site within the same year, do not exceed the maximum allowed total of 3 pounds per acre of acetochlor. Refer to the "INGREDIENTS" section of this label for necessary product information.

Do not flood irrigate to make application of or incorporate this product.

Product must be used in a manner which will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

Apply this product soon after preparing the spray mixture. Treatments made using spray solutions of this product that have been allowed to stand or have been stored in spray equipment or the mix tank for an extended period of time could result in crop injury.

Do not make application of this product through any type of irrigation system except under conditions detailed on this label.

Do not make application of this product using center pivot equipment, except under the conditions specified in the **CENTER PIVOT APPLICATION EQUIPMENT** section of this label.

Disposal of excess pesticide, spray mixtures or rinsate must be according to label use instructions or according to the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA regional office.

Do not make application under conditions that favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
- Do not make application to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered soils.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.

Do not make application of this product using aerial application equipment, except under the conditions specified, and only in the states listed, in the Aerial Application section of this label.

Do not make application when wind conditions favor drift to non-target sites. To minimize spray drift to non-target areas:

- Use low-pressure application equipment that is capable of producing a large droplet spray. Do not use nozzles that produce a
  fine droplet spray. Minimize drift by using large droplet size and sufficient spray volume to ensure adequate coverage.
- Keep ground driven spray boom as low as possible above the target surface.
- Make application when the wind velocity favors on-target product deposition (approximately 3 to 10 miles per hour). Do not
  make application when wind or wind gusts speeds are greater than 15 miles per hour
- Low humidity and high temperatures increase the likelihood of spray drift to sensitive areas. Avoid spraying during conditions of low humidity and/or high temperatures. Do not make application during inversion conditions.

Use of this product not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

Flush spray equipment with clean water after each use.

Dry weather may reduce effectiveness of this product. If weeds develop, a cultivation is required.

#### SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops:

- 1. The distance of the outermost nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
- 3. Observe the regulations of the State where applications are made if they are more stringent requirements than on this label.
- 4. Applicators must observe and abide by the requirements of the SPRAY DRIFT MANAGEMENT.

#### **Droplet Size Information**

Reduce drift potential by applying droplets of size >150 - 200 microns. The optimum drift management strategy is to apply the largest droplets that will provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift when applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

#### **Controlling Spray Droplet Size**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows usually produce larger droplets.
- Pressure Do not exceed the nozzle manufacturer's listed pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel
  to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle
  deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types narrower spray angles
  produce larger droplets. Consider using low drift nozzles. Consider using low drift nozzles for both ground and aerial applications.
   Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial
  applications.

#### **Boom Length**

For some aerial use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

#### **Application Height**

Aerial applications should not be made at a height greater than 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### **Swath Adjustment**

When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets etc.).

#### Wind

Drift potentials are lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Applications in wind conditions outside of this range could increase the risk of off-target effects and should be avoided. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### Temperature and Humidity

When making applications in conditions of low relative humidity set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **Temperature Inversions**

Do not apply **Sharda Acetochlor 33% CS** during temperature inversions because the drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the following morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or a smoke generator. Smoke that layers and moves laterally in a concentrated clod (under low wind conditions) indicate an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### Sensitive Areas

The pesticide may only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

#### Aircraft Maintenance

When applying this product by aerial application, thoroughly wash aircraft at the end of each application day to remove residues of product that has accumulated during application or from spills. Pay particular attention to areas of direct contact and landing gear. EXTENDED EXPOSURE OF THIS PRODUCT TO UNCOATED SURFACES COULD RESULT IN CORROSION AND POSSIBLE PART FAILURE. LANDING GEAR IS MOST SUSCEPTIBLE. The use and maintenance of an organic coating (paint) that meets aerospace specification MIL-C-38413 can help prevent corrosion.

#### **APPLICATION AND MIXING PROCEDURES**

#### **Ground Application**

Make application of this product and the labeled tank mixtures in 10 or more gallons of solution per acre using broadcast boom equipment. Do not make application during periods of gusty winds, when wind speeds are greater than 15 miles per hour or when other conditions that favor drift exist.

#### **Aerial Application**

Unless otherwise prohibited, all applications of **Sharda Acetochlor 33% CS** listed on this label may be made by air where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label.

Applications by air may be made in the following states only: Alabama, Arkansas, Colorado, Georgia, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

Do not make application of **Sharda Acetochlor 33% CS** using aerial application equipment except under conditions specified on this label.

Make application of this product at the specified use rate as directed on this label in 3 to 15 gallons of water per acre unless otherwise directed on this label or Fact Sheets published for this product. Unless otherwise directed, do not apply more than 2 quarts per acre when applying by air. See the individual use area sections of this label for application use rates, spray volumes and additional use instructions.

Use appropriate marking devices and make a uniform application to avoid streaked, overlapped or uneven application..

#### MIXING INSTRUCTIONS

#### Spray Tank Clean-Up

During cleaning or repair of application equipment care should be taken to minimize exposure. Whenever possible, equipment should be rinsed prior to being cleaned or repaired.

When repairs must be made during transfer or application of this product, the equipment should be shut down, and special care taken to avoid contact with the pesticide.

#### **Compatibility Test for Tank Mixtures**

Always determine the compatibility of this product or labeled tank mixtures of this product with water carrier by mixing small proportional quantities prior to making application to the entire field using a jar test method.

#### **Tank Mix Instructions**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Mix this product or labeled tank mixture of this product with the appropriate carrier as listed below:

- 1. Use a 20- to 35-mesh screen or wetting basket fitted over the filling port.
- 2. Fill the sprayer tank ½ full with the appropriate carrier added through the screen.
- 3. If a compatibility agent is needed to improve mixing or prevent formation of precipitates, add it to the carrier already in the tank while agitating. Use only compatibility agents that have been cleared by FDA for this use. Read and follow all directions for use, cautionary statements and all other information appearing on the selected compatibility agent label. Check for adequate agitation.
- 4. If using a wettable powder or dry flowable formulation, make a slurry with water and add slowly through the screen and into the tank. Maintain agitation.
- 5. If a flowable formulation is used, slowly add through screen and into the tank. Mixing and compatibility may be improved when flowable is pre-mixed: one part flowable with one part water and then added to the tank in diluted form.
- 6. Add this product slowly through the screen into the tank. Mixing and compatibility may be improved when this product is prediluted with two parts water and then added to the tank in diluted form.
- 7. Complete filling the sprayer tank with carrier. If a Roundup® agricultural herbicide or a Gramoxone brand herbicide is used, add the specified amount near the end of the filling process. To avoid siphoning back into the carrier source, remove hose from tank immediately after filling.

Maintain sufficient agitation at all times until the contents of the tank are sprayed.

**NOTE:** If spray mixture is allowed to settle at any time, thorough agitation is required to re-suspend the mixture prior to resuming spray application. Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be 50-mesh. To avoid spraying a fine mist, carefully select proper nozzle type. Check for even distribution of spray droplets. To reduce loss of the chemical due to drift of a fine mist, make application at nozzle pressures below 40 PSI.

#### **CENTER PIVOT APPLICATION EQUIPMENT**

All treatments described on this label may be made using center pivot irrigation equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label.

This product alone or in tank mixture with other herbicides on this label, which are registered for center pivot application, may be applied using center pivot irrigation systems. Do not apply this product through any other type of irrigation system.

Ensure that the soil type and depth to groundwater comply with the following restriction. On the following soil types, do not apply this product within 50 feet of any well where the depth to groundwater is 30 feet or less: sands with less than 3 percent organic matter; loamy sands with less than 2 percent organic matter; or sandy loams with less than 1 percent organic matter.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Use only in systems that apply uniformly.

If you have questions about calibration, contact the State Extension Service specialists, equipment manufacturers or other experts.

Do not chemigate through systems connected to a public water system.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Do not apply when system connections or fittings leak, when nozzles do not provide uniform distribution or when the line containing the product must be dismantled and drained.

The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a systems interlock. Pumps, injection equipment, agitation equipment, hoses and connections between supply tank and the point of injection must be constructed of materials which are resistant to this product.

Meter this product or a labeled tank mixture of this product into the center pivot irrigation system after planting and before crop emergence. Herbicide application should be made in ½ to ¾ inch of water per acre. Do not apply in more than ¾ inch of water per acre under any conditions or reduced performance may occur. On very sandy soils (more than 60 percent sand and less than 1 percent organic matter), use a maximum of ½ inch water per acre. Sufficient agitation must be maintained during the entire application period. Flush the system with water when application is complete. See the "MIXING INSTRUCTIONS" section of the label for mixing procedures.

Do not make application of this product in a tank mixture through center pivot irrigation unless the treatment is specifically recommended on the label of the tank mixture product.

#### **APPLICATION TIMING AND METHODS**

#### Pre-Plant, At-Planting, & Pre-Emergence Surface Applications

This product may be applied before planting, at-planting, or before emergence of the crops listed on this label. Sharda Acetochlor 33% CS will not control emerged weeds so it must be applied to a weed-free soil surface or in a tank mixture with products that provide post-emergence control of weeds at the time of application. Read and follow all restrictions and directions on tank mix product labels. Precipitation or overhead sprinkler irrigation is required after application to move the herbicide into the weed germination zone to control weeds that have not emerged. The amount of precipitation or irrigation required depends on existing soil moisture, soil type and percent organic matter content, but ½ to ¾ inch is normally adequate. Do not use mechanical incorporation unless specifically recommended on this label. If weeds emerge after treatment, rotary hoe or shallow cultivation is necessary to control weeds.

#### Post-Emergence Surface Applications

Post-emergence surface applications of this product must be made post-emergence to the crop but before weed seedling emergence or in a tank mixture with product that are labeled for the crop and to control emerged weeds. Sharda Acetochlor 33% CS will not control emerged weeds so application must be made to a weed-free soil surface or in a tank mixture with products that provide post-emergence control of weeds at the time of application. Read and follow all restrictions and directions on tank mix product labels. Precipitation or overhead sprinkler irrigation is required after application to move the herbicide into the weed germination zone to control weeds that have not emerged. The amount of precipitation or irrigation required depends on existing soil moisture, soil type and percent organic matter content, but ½ to ¾ inch is normally adequate. If weeds emerge after treatment, rotary hoe or shallowly cultivate to control weeds.

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NOTE: DO NOT make post-emergence surface applications with sprayable fluid fertilizer as the carrier as severe crop injury may result.

#### **Cultivation Information**

Delay cultivation after application of this product for as long as possible unless weeds or grasses emerge. Conduct a shallow cultivation or rotary hoe immediately if weeds or grasses emerge. If cultivation is necessary because of soil crusting or compaction, set equipment shallow and minimize lateral soil movement to avoid dilution or displacement of the herbicide treatment.

#### **ROTATIONAL CROP RESTRICTIONS**

If a crop treated with this product is lost, the following crops may be replanted immediately, but could result in crop injury: corn (all types), cotton, milo (sorghum), peanuts, soybeans, and non-food or non-feed winter cover crops.

Use only seed properly treated with seed protectant or safener when planting milo (sorghum)

**Grazing and Pre-Harvest Interval (PHI):** Do not graze or harvest winter cover crops for food or animal feed for a minimum of 18 months following last application of this product or any other product containing acetochlor.

Do not apply more than the annual maximum total of 3.0 lbs. per acre of acetochlor active ingredient if additional product is applied.

Non-grass animal feeds including alfalfa, clover, kudzu, lespedeza, lupin, sainfoin, trefoil, velvet bean, and Vetch spp. may be planted 9 months after treatment.

Wheat may be planted 4 months after treatment.

Rotate the next season to the following crops: barley, bean Vigna spp. (includes: adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea and urd bean); dried shelled bean group Lupinus spp. (including grain lupin, sweet lupin and white lupin); Phaseolus spp. (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); broad bean (dry) chickpea, guar, lablab bean, lentil, pea (Pisum spp., includes field pea); pigeon pea, buckwheat, corn (all types), cotton, milo (sorghum), millet (pearl and proso), oats, peanuts, potatoes, rice, rye, soybeans, sugar beets, sunflowers, tobacco, teosinte, triticale, wild rice.

#### WEEDS CONTROLLED

When application is made as directed under conditions described, **Sharda Acetochlor 33% CS** and tank mixtures of **Sharda Acetochlor 33% CS** will control or reduce competition from the weeds listed in the table below.

|   |                                      | ANNUAL                                    | BROADLEAVES            |                         |   |
|---|--------------------------------------|---|------------------------|-------------------------|---|
| Common Name                                   | Scientific Name                      | C = Control<br>R = Reduced<br>Competition | Common Name            | Scientific Name         | C = Control<br>R = Reduced<br>Competition |
| Beggarweed, Florida                           | Desmodium tortuosum                  | R   | Pigweed (Carelessweed) | Amaranthus spp.         | С   |
| Carpetweed                                    | Mollugo verticillata                 | С   | Purslane               | Portulaca oleracea      | С   |
| Galinsoga                                     | Galinsoga spp.                       | С   | Pusley, Florida        | Richardia scabra        | С   |
| Groundcherry, Cutleaf                         | Physalis angulata                    | R   | Sida, Prickly; Teaweed | Sida spinosa            | R   |
| Henbit  | Lamium amplexicaule                  | С   | Smartweed              | Polygonum pensylvanicum | R   |
| Lambsquarters                                 | Chenopodium album                    | С   | Starbur, Bristly       | Acanthospermum hispidum | R   |
| Nightshade, Black                             | Solanum nigrum                       | С   | Waterhemp              | Amaranthus tuberculatus | С   |
| Nightshade, Hairy                             | Solanum sarrachoides                 | С   | ,                      | -                       | }   |
|   |                                      | ANNUA                                     | L GRASSES              |                         |   |
| Barnyardgrass                                 | Echinochloa crus-galli               | С   | Panicum, Browntop      | Panicum fasciculatum    | С   |
| Crabgrass                                     | Digitaria ischaemum                  | С   | Panicum, Fall          | Panicum dichotomiflorum | С   |
| Crowfootgrass                                 | Dactyloctenium aegyptium (L.) Willd. | С   | Panicum, Texas         | Panicum texanum         | R   |
| Cupgrass, Prairie                             | Eriochloa contracta<br>Hitchc.       | С   | Rice, Red              | Oryza sativa            | С   |
| Foxtail, Giant                                | Setaria faberi                       | С   | Sandbur, Grassbur      | Cenchrus incertus       | R   |
| Foxtail, Green Robust<br>Purple; Robust White | Setaria viridis                      | С   | Shattercane, Wild Cane | Sorghum bicolor         | R   |
| Foxtail, Yellow                               | Setaria lutescens                    | С   | Signalgrass, Broadleaf | Brachiaria platyphylla  | С   |
| Goosegrass                                    | Eleusine indica                      | С   | Sprangletop, Red       | Leptochloa filiformis   | C   |
| Johnsongrass, Seedling                        | Sorghum halepense                    | R   | Wheat, Volunteer       | Triticum aestivum       | R   |
| Millet, foxtail                               | Setaria italica                      | R   | Witchgrass             | Panicum capillare L.    | С   |
| Oat, wild                                     | Avena fatua                          | R   |                        | 1                       | 1   |

### DIRECTIONS FOR USE FIELD CORN AND PRODUCTION SEED CORN

Sharda Acetochlor 33% CS for Pre-Plant, At-Planting, or Pre-Emergence Treatments in Field Corn & Production Seed Corn Apply Sharda Acetochlor 33% CS pre-plant, at-planting, or pre-emergence in field corn in the following listed states only: Alabama, Arkansas, Georgia, Hawaii, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

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When application is made pre-plant, at-planting, or pre-emergence in field corn and production seed corn, including Corn Hybrids with Roundup Ready 2 Technology, Sharda Acetochlor 33% CS will provide pre-emergence control or reduced competition of the annual weeds listed in the "WEEDS CONTROLLED" section of this label. If weeds have emerged at the time of application, use a labeled post-emergence herbicide to control weeds that have emerged. For control of weeds not listed on this label, use of a residual herbicide is recommended. Treatments may be made in a tank mix with the products listed below. Observe all directions for use, precautions, and restrictions on the labeling of the tank mixed post-emergence herbicide or residual herbicide.

#### **Application Equipment**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

Pre-Plant, At-Planting, or Pre-Emergence Surface: Sharda Acetochlor 33% CS may be applied pre-plant, at-planting, or preemergence to field corn and production seed corn at 1.5 to 3.0 qts. per acre according to the rate table below. Make a broadcast
application to the soil surface according to the rates listed in the table below. Mechanical incorporation is not recommended.
This product applied alone will not control weeds that have emerged.

#### **Precautions:**

- Application of this product, followed by conditions that do not favor adequate crop growth, or that cause stress (cold, wet soils),
  or under waterlogged conditions from excessive irrigation or rainfall, may result in crop response. Do not make application if
  these conditions are forecast within 10 days of application.
- Application of this product with other residual herbicides may increase the likelihood of crop injury.

|  | Sharda Acetochlor | 33% CS (Qts./Acre) |
|--|-------------------|--------------------|
| Soil Texture   | Organic Matter    |                    |
|  | Less than 3%      | 3% or More         |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)                           | 1.5 - 2.0         | 2.0                |
| Medium Soils<br>(Loam, Silt Loam, Silt, Sandy Clay Loam)                 | 1.5 - 2.75        | 2.0 - 2.75         |
| Fine Soils<br>(Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay) | 1.5 - 2.75        | 2.75 - 3.0         |

#### **Tank Mixtures**

It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

For improved residual weed control spectrum in field corn and production seed corn, application of **Sharda Acetochlor 33% CS** may be made pre-plant, at-planting, or pre-emergence in tank mixture with the following products: Aim® EC, carfentrazone, Balance® PRO, Balance® Flexx, isoxaflutole, Callisto®, mesotrione, Clarity®, dicamba, Distinct®, diflufenzopyr, Linex® 4L, Lorox® DF, linuron, Marksman®, Princep®, simazine, Resource®, flumiclorac, Roundup® Brand Agricultural herbicides, 2,4-D, Atrazine.

#### Sharda Acetochlor 33% CS for Post-Emergence Use in Field Corn & Production Seed Corn

When application is made post-emergence in field corn and production seed corn, including Corn Hybrids with Roundup Ready 2 Technology, as one or two applications, **Sharda Acetochlor 33% CS** will provide pre-emergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "**WEEDS CONTROLLED**" section of this label. If weeds have emerged at time of application, make application of **Sharda Acetochlor 33% CS** with a labeled post-emergence herbicide to control the weeds that have emerged.

#### **Application Equipment**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

Post-Emergence Surface Application: Make application of Sharda Acetochlor 33% CS before weeds have emerged in field corn including Corn Hybrids with Roundup Ready 2 Technology (from seedling emergence to 30 inches tall). To minimize interference of spray by crop and to increase soil coverage, directed spray may be used. Drop nozzles will provide optimum spray coverage and weed control when corn height is 24 to 30 inches. Use rates are listed in the table below. Use the higher labeled rate on larger weeds and where heavy weed infestations exist. Weeds emerged at the time of application will not be controlled by this product. Make application of a labeled post-emergence herbicide with this product to control weeds that have emerged, or shallowly cultivate or rotary hoe to improve performance. See the "Additional Tank Mixtures" section for recommended tank mix products for post-emergence applications in field corn. Make application of Sharda Acetochlor 33% CS broadcast over-the-top or directed to the soil surface, according to the rate table listed below.

#### Precautions:

This product will not control weeds that have emerged. For weeds that have emerged, make application prior to weed
emergence, use a labeled post-emergence herbicide or cultivate as needed.

#### Restrictions:

- Do not make application of Sharda Acetochlor 33% CS on sweet corn.
- Do not apply more than 4.0 qts. (3.0 lbs. acetochlor) per acre per year of acetochlor when making multiple applications.
- Do not make post-emergence surface applications using sprayable fluid fertilizer as the carrier because severe crop injury may
  result.
- Do not graze treated area or feed treated forage to livestock for 40 days following application of this product.

|  | Sharda Acetochlor 33% CS (Qts./Acre) Organic Matter |            |  |
|--|---|------------|--|
| Soil Texture   |   |            |  |
|  | Less than 3%  | 3% or More |  |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)                           | 1.5 - 2.0   | 2.0        |  |
| <b>Viedium Soils</b><br>Loam, Silt Loam, Silt, Sandy Clay Loam)          | 1.5 - 2.75  | 2.0 - 2.75 |  |
| Fine Soils<br>(Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay) | 1.5 - 2.75  | 2.75 - 3.0 |  |

#### Sharda Acetochlor 33% CS plus Roundup Agricultural Herbicides on Corn Hybrids with Roundup Ready 2 Technology

This application program may be used post-emergence, from seedling emergence until the corn reaches 30 inches in height, in tank mixture with Roundup agricultural herbicides on corn hybrids with Roundup Ready 2 Technology. Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products with Roundup Ready 2 Technology. See the Roundup agricultural herbicide labels for specific weeds controlled post-emergence.

#### **Application Equipment**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

• Post-Emergence Surface: This tank mix application may be made from seedling emergence until the corn reaches 30 inches in height. Directed spray may be used to minimize interference of spray by crop and to increase soil coverage. When corn height is 24 to 30 inches, drop nozzles are recommended for optimum spray coverage and weed control. Labeled use rates for this tank mix are listed in the table below. Use the higher listed use rate on larger weeds and where heavy weed infestations exist. Apply this tank mix when weeds are 2 to 4 inches in height and before the weed height and/or density become competitive with the crop. For difficult to control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane, broadleaf signalgrass and Pennsylvania smartweed use the higher rates of Roundup agricultural herbicides.

#### Restrictions:

- Do not use Sharda Acetochlor 33% CS on sweet corn.
- Do not apply more than 4.0 qts. (3.0 lbs. acetochlor) per acre per year when making a second application.
- Do not make post-emergence surface treatments using sprayable fluid fertilizer as the carrier because severe crop injury may occur.
- Do not graze treated area or feed treated forage to livestock for 40 days following application of this product.
- AVOID DRIFT. EXTREME CARE MUST BE USED WHEN MAKING APPLICATION OF THIS PRODUCT IN A TANK MIXTURE WITH A
  ROUNDUP AGRICULTURAL HERBICIDE TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A
  GLYPHOSATE TOLERANCE GENE.

| BROADC   | AST RATE PER ACRE*                      |                                 |
|--|---|---------------------------------|
| Soil Texture   | Sharda Acetochlor 33% CS<br>(Qts./Acre) | Roundup Agricultural Herbicides |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)                           | 1.5 - 2.0                               | Per Labeled Use Rate            |
| Medium Soils<br>(Loam, Silt Loam, Silt, Sandy Clay Loam)                 | 1.5 - 2.75                              | Per Labeled Use Rate            |
| Fine Soils<br>(Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay) | 1.5 - 3.0                               | Per Labeled Use Rate            |
| *Use the higher listed use rate in the specified range for areas of      | heavy weed infestation.                 |                                 |

#### Additional Tank Mixtures

Ensure that the product being used in the tank mixture is registered for application post-emergence (in-crop) to field corn or

production seed corn. It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Sharda Acetochlor 33% CS may be tank mixed with the following products for post-emergence applications in field corn and production seed corn, including corn hybrids with Roundup Ready 2 Technology, include Roundup Ready Corn 2: Aim®, Aim® EC, Axiom®, Balance®, Banvel®, Callisto®, Clarity®, Define™, Distinct®, Epic™, Hornet®, Impact®, Linex®, Lorox®, Marksman®, Prowl®, Python®, Resource®, Shark®, 2,4-D, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, glyphosate, isoxaflutole, linuron, mesotrione, metribuzin, pendimethalin, rimsulfuron, topramezone

#### **DIRECTIONS FOR USE - COTTON**

#### Sharda Acetochlor 33% CS for Pre-Plant, At-Planting, or Pre-Emergence Applications in Cotton

When application is made pre-plant, at-planting, or pre-emergence to cotton, including Roundup Ready Flex cotton, as one or two applications, **Sharda Acetochlor 33% CS** will provide pre-emergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "**WEEDS CONTROLLED**" section of this label. If weeds are emerged at time of application, make application of a labeled post-emergence herbicide with this product to control the emerged weeds. Use of a residual herbicide for the control of weeds not listed on this label is recommended. Treatments may be made in a tank mixture with the products listed below. Observe the directions for use, precautions and restrictions on the label of the tank mixture herbicide.

#### **Application Systems**

- · Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### Application Methods

Pre-Plant, At-Planting, or Pre-Emergence Surface: Application of Sharda Acetochlor 33% CS may be made pre-plant, at-planting or pre-emergence to cotton at 1.25 - 2.0 qts. per acre according to the rate table below. The optimum application use rate is 1.5 qts. per acre. Make a broadcast application to the soil surface according to the rate table listed below. Mechanical incorporation is not recommended. This product will not control weeds that have emerged at the time of application.

#### Precautions:

- Application of this product with other post-emergence or soil applied herbicides may increase the risk of crop injury.
- Application of this product followed by conditions that do not favor adequate crop growth or that cause stress (cold, wet soils),
  or under waterlogged conditions from excessive irrigation or rainfall, may result in crop injury.

#### Restriction:

• Do not exceed 4.0 qts. (3.0 lbs. acetochlor) per acre per year when making a second application, including a post-emergence application in cotton.

|  | Sharda Acetochlor 33% CS (Qts./Acre) |              |  |
|--|--------------------------------------|--------------|--|
| Soil Texture   | Organic                              | Matter       |  |
|  | Less than 1.5%                       | 1.5% or More |  |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)                       | 1.25 - 1.6                           | 1.25 - 1.7   |  |
| Medium Soils<br>Loam, Silt Loam, Silt, Sandy Clay Loam)              | 1.25 - 1.7                           | 1.25 - 1.9   |  |
| Fine Soils Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay) | 1.25 - 1.9                           | 1.25 - 2.0   |  |

#### **Tank Mixtures**

It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Sharda Acetochlor 33% CS may be tank mixed with the following products when applied pre-plant, at-planting, or pre-emergence in cotton: Caparol® 4L, Cotoran® 4L, Direx® 4L, Gramoxone Inteon®, Flexstar® GT, Prowl®, Reflex®, Roundup Brand Agricultural Herbicides, Rowel™, Staple®, Valor®, diuron, fluometuron, flumioxazin, fomesafen, paraquat, pendimethalin, prometryn, pyrithiobacsodium.

#### Sharda Acetochlor 33% CS for Post-Emergence Use in Cotton

When application is made post-emergence to cotton, including to Roundup Ready Flex cotton, as one or two applications, Sharda Acetochlor 33% CS will provide pre-emergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. If weeds are emerged at time of application, make application of a labeled post-

emergence herbicide with this product to control the emerged weeds. Use of a residual herbicide for the control of weeds not listed on this label is recommended. See the below "Additional Tank Mixtures" section for recommended tank mix products for post-emergence applications in cotton. Observe the directions for use, precautions and restrictions on the label of the post-emergence herbicide.

#### **Application Systems**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

• Post-Emergence Surface: Make application of Sharda Acetochlor 33% CS post-emergence to cotton and before weed emergence. The treatment should be made after cotton is completely emerged but before cotton reaches first bloom. Make application of Sharda Acetochlor 33% CS when crop is small or direct spray to the soil surface to minimize interference of spray by crop. The optimum timing and rate of application is when cotton is in 2- to 3-leaf stage or before weed emergence at 1.5 qts. per acre. Directed applications may be used to increase soil coverage and canopy penetration after cotton reaches 5- to 6-leaf stage. Use rates are defined in the table below. Use the higher labeled use rate where heavy weed infestations exist. Weeds emerged at the time of treatment are not controlled by this product. If weeds are emerged at treatment, make application of a labeled post-emergence herbicide with this product to control the emerged weeds or shallowly cultivate or rotary hoe to improve performance. Make application of Sharda Acetochlor 33% CS broadcast over-the-top or directed to the soil surface, according to the rate table listed below.

In sprinkler-irrigated areas, sprinkler irrigate after application with ½ - ¾ inch of water (½ inch on coarse-textured soils to ¾ inch on fine-textured soils) to incorporate product. In furrow-irrigated areas, apply product, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less), and then irrigate. In non-irrigated areas, if at least ½ inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides shallow incorporation of the product.

#### Precaution:

Application prior to weeds emerge, or after clean cultivation is necessary as this product will not control emerged weeds.

#### Restrictions:

- Do not exceed 4.0 qts. (3.0 lbs. acetochlor) per acre per year when making a second application.
- Do not make post-emergence surface applications using sprayable fluid fertilizer as the carrier because severe crop injury may occur.
- Do not graze treated area or feed treated cotton forage to livestock following application of this product.

|  | AST RATE PER ACRE*  Sharda Acetochlor 33% CS (Qts./Acre)  Organic Matter |              |  |
|--|--|--------------|--|
| Soil Texture   |  |              |  |
|  | Less than 1.5%   | 1.5% or More |  |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)                           | 1.25 - 1.6   | 1.25 - 1.7   |  |
| Medium Soils<br>(Loam, Silt Loam, Silt, Sandy Clay Loam)                 | 1.25 - 1.7   | 1.25 - 1.9   |  |
| Fine Soils<br>(Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay) | 1.25 - 1.9   | 1.25 - 2.0   |  |

#### Sharda Acetochlor 33% CS plus Roundup Agricultural Herbicides in Roundup Ready Flex Cotton

This spay program may be made post-emergence in a tank mixture with a Roundup agricultural herbicide in Roundup Ready Flex Cotton. Make application post-emergence when cotton is completely emerged until cotton reaches first bloom. See the Roundup agricultural herbicide labels for specific weeds controlled post-emergence.

#### **Application Systems**

- · Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

• Post-Emergence Surface: This tank mix may be made after cotton is completely emerged and until cotton reaches first bloom. The optimum timing and rate of application is when cotton is in 2- to 3-leaf stage at 1.5 qts. per acre. Directed applications may be used to increase soil coverage and canopy penetration after cotton reaches 5- to 6-leaf stage. Labeled use rates for this tank mix are defined in the table below. Use the higher listed use rate on larger weeds and where heavy weed infestations exist. This tank mix should be made when weeds are 2 to 4 inches in height and before the weed height and/or density become competitive with the crop. For difficult to control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane, broadleaf signalgrass.

and Pennsylvania smartweed use the higher labeled rates of Roundup agricultural herbicides.

#### Restrictions:

- Do not exceed 4.0 qts. (3.0 lbs. acetochlor) per acre per year when making a second application.
- Do not make post-emergence surface treatments using sprayable fluid fertilizer as the carrier because severe crop injury may result.
- Do not graze treated area or feed treated forage to livestock following application of this product.
- AVOID DRIFT. EXTREME CARE MUST BE USED WHEN MAKING APPLICATION THIS PRODUCT IN A TANK MIXTURE WITH A
  ROUNDUP AGRICULTURAL HERBICIDE TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A
  GLYPHOSATE TOLERANCE GENE.

| AST RATE PER ACRE*                      |   |
|---|---|
| Sharda Acetochlor 33% CS<br>(Qts./Acre) | Roundup Agricultural Herbicides                                     |
| 1.25 - 1.7                              | Per Labeled Rate.   |
| 1.25 - 1.9                              | Per Labeled Rate.   |
| 1.25 - 2.0                              | Per Labeled Rate.   |
| _                                       | Sharda Acetochlor 33% CS<br>(Qts./Acre)<br>1.25 - 1.7<br>1.25 - 1.9 |

#### **Additional Tank Mixtures**

It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

- Post-Emergence Over-The-Top Use in Cotton (All Types) Sharda Acetochlor 33% CS may be tank mixed with the following products when applied post-emergence over-the-top in cotton: Assure® II, Envoke®, Fusilade®, Ignite®, Poast Plus®, Pyrimax™, Select Max®, Staple®, clethodim, fenoxaprop-P-ethyl, fluazifop-P, pyrithiobac sodium, quizalofop-P-ethyl, sethoxydim
- Post-Directed Use in Cotton (All Types) Sharda Acetochlor 33% CS may be tank mixed with the following products when applied post-directed over-the-top to cotton: Aim®, Caparol®, Chateau®, Direx®, Envoke®, Layby™ Pro, Rowel™, Staple®, Valor®, carfentrazone-ethyl, diuron, flumioxazin, MSMA, pendimethalin, quizalofop-P-ethyl, prometryn, pyrithiobac sodium, trifloxysulfuron-sodium

#### **DIRECTIONS FOR USE - PEANUT**

Sharda Acetochlor 33% CS for Pre-Plant, At-Planting, Pre-Emergence, or Post-Emergence Applications in Peanuts
When application is made pre-plant, at-planting, pre-emergence, or post-emergence in peanuts, Sharda Acetochlor 33% CS will
provide pre-emergence control or reduced competition of the annual weeds listed in the "WEEDS CONTROLLED" section of this label.
If weeds are emerged at time of application, make application of a labeled post-emergence herbicide with this product to control the
emerged weeds. Applications may be made in a tank mixture with the products listed below. Observe the directions for use,
precautions and restrictions on the label of the tank mixture herbicide.

#### **Application Systems**

- Ground: Broadcast boom
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

- Pre-Plant, At-Planting, or Pre-Emergence Surface: Application of Sharda Acetochlor 33% CS may be made pre-plant, at-planting, or pre-emergence to peanut at 1.25 2.0 qts. (0.94 1.5 lbs. a.i.) per acre. Make a broadcast application to the soil surface according to the rate table listed below.
- Post-Emergence Surface: Application of Sharda Acetochlor 33% CS may be made post-emergence to peanut at 1.25 2.0 qts. per acre after crop emergence up through the R1 growth stage (beginning bloom). R1 ends as 50% of the plants in an area have a visible peg (R2). Make a broadcast application over top of the crop or directed to the soil surface according to the rate table listed below.

#### Precautions:

- Application of this product in tank mixture with other products or to soils where other treatments of soil applied herbicides have been made may increase the potential for injury with this product.
- Application of this product followed by conditions that do not favor adequate crop growth or that cause stress (cold, wet soils),
  or under waterlogged conditions from excessive irrigation or rainfall, may result in crop injury.
- For weeds that have emerged, make application prior to weed emergence, use a labeled post-emergence herbicide or cultivate as needed.

#### Restrictions:

- Do not exceed 2.0 qts. (1.5 lbs. a.i.) per acre as a single application. Allow at least 7 days between sequential applications.
- Do not exceed 4.0 qts. (3.0 lbs. acetochlor) per acre per year when making multiple applications.
- Do not exceed a total of 3 applications per season.
- Allow a minimum of 90 days between last treatment and grazing or feeding of peanut hay to livestock.

| BROADCAST RATE PER ACRE*  Sharda Acetochior 33% CS (Qts./Acre)           |                      |              |  |  |  |
|--|----------------------|--------------|--|--|--|
| Soil Texture   | Organic Matter       |              |  |  |  |
|  | Less than 1.5%       | 1.5% or More |  |  |  |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)                           | 1.25 - 1.6           | 1.25 - 1.7   |  |  |  |
| Medium Soils<br>(Loam, Silt Loam, Silt, Sandy Clay Loam)                 | 1.25 - 1.7           | 1.25 - 1.9   |  |  |  |
| Fine Soils<br>(Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay) | 1.25 - 1.9           | 1.25 - 2.0   |  |  |  |
| *Use the higher listed use rate in the specified range for areas of hea  | vy weed infestation. |              |  |  |  |

#### **Tank Mixtures**

It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

 Pre-Plant or Pre-Emergence: Application of Sharda Acetochlor 33% CS may be made in a tank mixture early pre-plant or preemergence to peanuts with the following products, to expand weed control spectrum: Prowl, Sonalan, Strongarm, Treflan, Rowel, Valor

Pre-plant soil incorporated treatments in a tank mixture with Prowl, Sonalan, Strongarm or Treflan are not recommended due to risk of crop injury and reduced weed control.

Post-Emergence: Application of Sharda Acetochlor 33% CS may be made in a tank mixture post-emergence to peanuts with the
following products to expand weed control spectrum or for control of emerged weeds at the time of application: Gramoxone,
Firestorm, Parazone, Cadre, Cobra, paraquat, Storm, Ultra Blazer, 2,4-DB, flumioxazin

#### DIRECTIONS FOR USE - FORAGE AND GRAIN SORGHUM (MILO)

#### Sharda Acetochlor 33% CS for Pre-Plant Incorporated, Pre-Emergence, or Post-Emergence Applications in Sorghum

When application is made pre-plant incorporated, pre-emergence, or post-emergence in sorghum, as one or two applications, **Sharda Acetochlor 33% CS** will provide pre-emergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "**WEEDS CONTROLLED**" section of the label. If weeds are emerged at time of application, make application of a labeled post-emergence herbicide with this product to control the emerged weeds. Observe the directions for use, precautions and restrictions on the label of the post-emergence herbicide.

#### **Application Systems**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

Pre-Plant Incorporated, Pre-Emergence Surface, or Post-Emergence Surface: Make application of Sharda Acetochlor 33% CS pre-plant incorporated, pre-emergence, or post-emergence to sorghum before the crop exceeds 11 inches in height (in general, 5- to 6-leaf sorghum). This product will not control emerged weeds, therefore, emerged weeds must be controlled by a labeled post-emergence herbicide or cultural means. If sorghum seed is not properly treated with seed protectant or safener, pre-plant and pre-emergence treatment of Sharda Acetochlor 33% CS will severely injure the crop.

#### **Precautions:**

- Pre-plant Incorporated and pre-emergence applications of this product must be made ONLY to sorghum planted with seed that
  has been properly treated with seed protectant or safener. Base application use rates from the table below on the soil texture
  and the tolerance of the sorghum hybrid.
- Texas: Use only in the Panhandle area and the fine-textured soils of the Gulf Coast and the Blacklands. In the Texas Panhandle and Oklahoma Panhandle, do not make a pre-plant incorporated application.

#### Restrictions

- Do not exceed 4.0 qts. (3.0 lbs. acetochlor) per acre per year when making multiple treatments.
- Do not make post-emergence surface applications using sprayable fluid fertilizer as the carrier because severe crop injury may
  occur.

Do not graze treated area or feed treated sorghum forage to livestock for 60 days following application of this product.

|  | Sharda Acetochlor | 33% CS (Qts./Acre) |
|--|-------------------|--------------------|
| Soil Texture   | Organic           | Matter             |
|  | Less than 1.5%    | 1.5% or More       |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)                           | 1.5 - 2.25        | 2.0 - 2.5          |
| Medium Soils<br>(Loam, Silt Loam, Silt, Sandy Clay Loam)                 | 1.5 - 2.25        | 2.0 - 3.0          |
| Fine Soils<br>(Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay) | 1.5 - 2.5         | 2.25 - 3.0         |

#### **Tank Mixtures**

Ensure that the product being used in the tank mixture is registered for use in sorghum. It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Sharda Acetochlor 33% CS may be tank mixed with the following products for applications in sorghum: Buctril®, Huskie™, atrazine, bromoxynil, dicamba, 2,4-D, pyrasulfotole.

#### **DIRECTIONS FOR USE - SOYBEANS**

#### Sharda Acetochlor 33% CS for Pre-Plant, At-Planting, or Pre-Emergence Applications in Soybeans

When application is made pre-plant, at-planting, or pre-emergence in soybean, including Roundup Ready Soybeans and Roundup Ready 2 Yield Soybeans, **Sharda Acetochlor 33% CS** will provide pre-emergence control or reduced competition of the annual weeds listed in the "**WEEDS CONTROLLED**" section of this label. If weeds are emerged at the time of application, make application of a labeled post-emergence herbicide to control emerged weeds. Use of a residual herbicide for the control of weeds not listed on this label is recommended. Treatments may be made in a tank mixture with the products listed below. Observe all directions for use, precautions, and restrictions on the labeling of the tank mixed post-emergence herbicide or residual herbicide.

#### **Application Systems**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

Pre-Plant, At-Planting, or Pre-Emergence Surface: Application of Sharda Acetochlor 33% CS may be made pre-plant, at-planting or pre-emergence to soybeans at 1.25 - 2.0 qts. per acre according to the rate table below. The optimum rate of application is 1.5 qts. per acre. Make a broadcast application to the soil surface according to the rate table listed below. Mechanical incorporation is not recommended. This product will not control emerged weeds.

#### **Precautions:**

- Application of this product with other post-emergence or soil applied herbicides may increase the risk of crop injury.
- Application of this product followed by conditions that do not favor adequate crop growth or that cause stress (cold, wet soils),
  or under waterlogged conditions from excessive irrigation or rainfall, may result in crop injury.

#### Restriction:

 Do not exceed 4.0 qts. (3.0 lbs. acetochlor) per acre per year when making a second application, including a post-emergence application to soybeans.

|              | r 33% CS (Qts./Acre)<br>c Matter |
|--------------|----------------------------------|
|              |                                  |
| ss than 1.5% |                                  |
|              | 1.5% or More                     |
| 1.25 - 1.6   | 1.25 - 1.7                       |
| 1.25 - 1.7   | 1.25 - 1.9                       |
| 1.25 - 1.9   | 1.25 - 2.0                       |
|              |                                  |

#### **Tank Mixtures**

It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Sharda Acetochlor 33% CS may be tank mixed with the following products when application is made pre-plant, at-planting, or preemergence in soybeans, including Roundup Ready Soybeans and Roundup Ready 2 Yield Soybeans: Authority® Assist, Authority® First, Authority® MTZ, Authority® XL, Authority® MAXX, Gramoxone Inteon®, Flexstar®, Prowi®, Reflex®, Roundup Brand Agricultural Herbicides, fomesafen, metribuzin, paraquat, pendimethalin.

For the states of Alabama, Arkansas, Delaware, Georgia, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Nebraska, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia: Application of Sharda Acetochlor 33% CS may be made in soybeans, including Roundup Ready Soybeans and Roundup Ready 2 Yield Soybeans, under the conditions described below:

- Conventional Tillage Conditions: For soybeans planted under conventional tillage conditions, Sharda Acetochlor 33% CS may
  be tank mixed with the following products and applied pre-plant up to 14 days prior to planting.
- No-Till or Minimum Tillage Conditions: Sharda Acetochlor 33% CS may be tank mixed with the following products and applied
  pre-plant, at-planting, or pre-emergence in soybeans planted under no-till or minimum tillage conditions on wheat stubble
  or non-till field corn stubble.

[Insert active ingredient(s), and/or the brand names of product(s) containing the following active ingredient(s), that are, at the time of label printing, registered for use pre-plant or pre-emergence in soybeans: flumioxazin, chlorimuron-ethyl, cloransulam-methyl, Rowel®, Valor®, Gangster®]

#### Sharda Acetochlor 33% CS for Post-Emergence Use in Soybeans

When application is made post-emergence in soybeans, Roundup Ready Soybeans and Roundup Ready 2 Yield Soybeans, as one or two applications, **Sharda Acetochlor 33% CS** will provide pre-emergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. If weeds are emerged at time of treatment, apply a labeled post-emergence herbicide with this product to control the emerged weeds. See the below "Additional Tank Mixtures" section for recommended tank mix products for post-emergence applications in cotton. Observe the directions for use, precautions and restrictions on the label of the post-emergence herbicide.

#### **Application Systems**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

• Post-Emergence Surface: Make application of Sharda Acetochlor 33% CS post-emergence to soybeans and before weed emergence. The treatment should be made after soybeans are completely emerged but before soybeans reach growth stage R2. Make application of this product when crop is small or direct spray to the soil surface to minimize interference of spray by crop. The optimum timing and rate of application is when soybeans are V2-V3 at 1.5 qts. per acre. Directed applications may be used to increase soil coverage and canopy penetration after soybean growth stage V5. Use rates are defined in the table below. Use the higher listed use rate where heavy weed infestations exist. Weeds emerged at the time of application are not controlled by this product. If weeds are emerged at application, make application of a labeled post-emergence herbicide with this product to control the emerged weeds or shallowly cultivate or rotary hoe to improve performance. Make application of Sharda Acetochlor 33% CS broadcast over-the-top or directed to the soil surface, according to the rate table listed below.

#### Precaution:

• For weeds that have emerged, make application prior to weed emergence, use a labeled post-emergence herbicide or cultivate as needed, as this product will not control weeds that have emerged.

#### Restrictions:

- Do not exceed 4.0 qts. (3.0 lbs. acetochlor) per acre per year of acetochlor when making a second application.
- Do not make post-emergence surface applications using sprayable fluid fertilizer as the carrier because severe crop injury may result.
- Do not graze treated area or feed treated soybean forage to livestock following application of this product.

| BROADCAST RATE PER ACRE*                                 |                    |                    |  |  |  |
|--|--------------------|--------------------|--|--|--|
|  | Sharda Acetochlor  | 33% CS (Qts./Acre) |  |  |  |
| Soil Texture   | ture Organic Matte |                    |  |  |  |
|  | Less than 1.5%     | 1.5% or More       |  |  |  |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)           | 1.25 - 1.6         | 1.25 - 1.7         |  |  |  |
| Medium Soils<br>(Loam, Silt Loam, Silt, Sandy Clay Loam) | 1.25 - 1.7         | 1.25 - 1.9         |  |  |  |

| Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)            | 1.25 - 1.9 | 1.25 - 2.0 |  |  |  |
|--|------------|------------|--|--|--|
| *Use the higher rate in the specified range for areas of heavy weed infestation. |            |            |  |  |  |

## Sharda Acetochlor 33% CS plus Roundup Agricultural Herbicides on Roundup Ready Soybeans and Roundup Ready 2 Yield Soybeans

This spray program may be used post-emergence in a tank mixture with a Roundup agricultural herbicide to Roundup Ready Soybeans and Roundup Ready 2 Yield Soybeans. Use post-emergence when soybeans are completely emerged until the soybeans reach growth stage R2. See the Roundup agricultural herbicide product labels for specific weeds controlled post-emergence.

#### **Application Systems**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section
  for additional information.

#### **Application Methods**

- Pre-Plant, At-Planting, or Pre-Emergence Surface: Application of Sharda Acetochlor 33% CS may be made pre-plant, at-planting, or pre-emergence to the soybeans at 1.25 2.0 qts. per acre according to the rate table below. The optimum rate of application is 1.5 qts. per acre. Make a broadcast application to the soil surface according to the rate table listed below. Mechanical incorporation is not recommended. This product will not control emerged weeds.
- Post-Emergence Surface: This tank mix may be made after soybeans are completely emerged and until the soybeans reach growth stage R2. The optimum timing and rate of application is when soybeans are V2-V3 at 1.5 qts. per acre. Directed applications may be used to increase soil coverage and canopy penetration after soybean growth stage V5. Labeled use rates for this tank mixture are defined in the table below. Use the higher listed use rate on larger weeds and where heavy weed infestations exist. This tank mix should be made when weeds are 2 to 4 inches in height and before the weed height and/or density become competitive with the crop. For difficult to control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane, broadleaf signalgrass and Pennsylvania smartweed use the higher rates of Roundup agricultural herbicides.

#### Restrictions:

- Do not exceed 4.0 qts. (3.0 lbs. acetochlor) per acre per year when making a second application, including a post-emergence application.
- Do not make post-emergence surface applications using sprayable fluid fertilizer as the carrier because severe crop injury may occur.
- Do not graze treated area or feed treated soybean forage to livestock following application of this product.
- AVOID DRIFT. EXTREME CARE MUST BE USED WHEN MAKING APPLICATION OF THIS PRODUCT IN A TANK MIXTURE WITH A
  ROUNDUP AGRICULTURAL HERBICIDE TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A
  GLYPHOSATE TOLERANCE GENE.

| AST RATE PER ACRE*   |   |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|
| Soil Texture Sharda Acetochlor 33% CS (Qts./Acre) Roundup Agricultural |   |  |  |  |  |  |  |
| 1.25 - 1.7   | Per Labeled Rate.   |  |  |  |  |  |  |
| 1.25 - 1.9   | Per Labeled Rate.   |  |  |  |  |  |  |
| 1.25 - 2.0   | Per Labeled Rate.   |  |  |  |  |  |  |
|  | Sharda Acetochlor 33% CS<br>(Qts./Acre)<br>1.25 - 1.7<br>1.25 - 1.9 |  |  |  |  |  |  |

#### **Additional Tank Mixtures**

Ensure that the product being used in the tank mixture is registered for application post-emergence (in-crop) to soybeans. It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Application of Sharda Acetochlor 33% CS may be made in a tank mixture with the following products post-emergence to soybeans, including Roundup Ready Soybeans and Roundup Ready 2 Yield Soybeans: Arrow®, Assure® II, Basagran®, Classic®, Cobra®, Extreme®, FirstRate®, Flexstar®, Fusilade® DX, Fusion®, Harmony® GT XP, Poast®, Poast Plus®, Pursuit®, Pursuit® Plus, Raptor®, Reflex®, Select®, Select Max®, Synchrony® STS, Targa®, Ultra Blazer®, acifluorfen, bentazon, chlorimuron ethyl, clethodim, cloransulam-methyl, fenoxaprop-P-ethyl, fluazifop-P, fomesafen, imazamox, imazethapyr, lactofen, quizalofop-P-ethyl, sethoxydim, thifensulfuron-methyl

#### **DIRECTIONS FOR USE - SUGAR BEET**

provide pre-emergence control or reduced competition of the annual weeds listed in the "WEEDS CONTROLLED" section of this label. If weeds are emerged at the time of application, make application of a labeled post-emergence herbicide with this product to control the emerged weeds. Observe the directions for use, precautions, and restrictions on the label of the post-emergence herbicide.

#### **Application Systems**

- Ground: Broadcast application equipment
- Aerial: Fixed-wing and helicopter. Allowed in selected states only See the "APPLICATION AND MIXING PROCEDURES" section for additional information.

#### **Application Methods**

- Pre-Plant, At-planting, or Pre-Emergence Surface: Application of Sharda Acetochlor 33% CS may be made pre-plant, at-planting, or pre-emergence to sugar beets at 1.25 2.0 qts. (0.94 1.5 lbs. a.i.) per acre. Make a broadcast application to the soil surface according to the rate table listed below.
- Post-Emergence Surface: Application of Sharda Acetochlor 33% CS may be made post-emergence to sugar beets at 1.25 2.0 qts. per acre from the 2- to 8-leaf stage, with the 4-leaf stage being the ideal timing. Make a broadcast application over top of the crop or directed to soil surface according to the rate table listed below.

#### **Precautions:**

- Application of Sharda Acetochlor 33% CS followed by, conditions that do not foster adequate crop growth or cause stress (cold, wet soils), waterlogged conditions, or, excessive irrigation or rainfall, may result in crop injury.
- Applications of tank mixtures with adjuvants and herbicides may result in crop injury.
   Application of this product followed by conditions that result in loss of sugar beet stand may result in significant crop injury when a subsequent sugar beet crop is replanted into the treated area. User should take care to ensure that the sugar beet stand is at a desirable level before making application of Sharda Acetochlor 33% CS. If Sharda Acetochlor 33% CS has been applied and the crop fails because of adverse weather or any other reason, replanting sugar beets is not recommended. A crop that is allowed for pre-emergence applications on the Sharda Acetochlor 33% CS label may be replanted if the sugar beet stand is lost.
- For weeds that have emerged, make application prior to weed emergence, use a labeled post-emergence herbicide or cultivate
  as needed, as this product will not control weeds that have emerged.

#### Restrictions:

- Do not exceed 2.0 qts. (1.5 lbs. a.i.) per acre as a single application. Allow at least 7 days between sequential applications.
- Do not exceed a total of 4.0 qts. (3.0 lbs. a.i.) per acre per season when making multiple applications.
- Do not exceed a total of 3 applications per season in sugar beets.
- Grazing and Pre-Harvest Interval (PHI): Allow a minimum of 70 days between last application and harvest of sugar beet, and
  grazing or harvest and feeding of sugar beet tops to livestock.

| BROADCAST RATE PER ACRE*  Sharda Acetochlor 33% CS (Qts./Acre)           |                |              |  |  |  |
|--|----------------|--------------|--|--|--|
| Soil Texture   | Organic        | Matter       |  |  |  |
|  | Less than 1.5% | 1.5% or More |  |  |  |
| Coarse Soils<br>(Sand, Loamy Sand, Sandy Loam)                           | 1.25 - 1.6     | 1.25 - 1.7   |  |  |  |
| Medium Soils<br>(Loam, Silt Loam, Silt, Sandy Clay Loam)                 | 1.25 - 1.7     | 1.25 - 1.9   |  |  |  |
| Fine Soils<br>(Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay) | 1.25 - 1.9     | 1.25 - 2.0   |  |  |  |

#### **Tank Mixtures**

It is the end-user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

- Pre-Plant or Pre-Emergence: Application of Sharda Acetochlor 33% CS may be made in a tank mixture early pre-plant or preemergence to sugar beets with the following products, to expand weed control spectrum: [Insert active ingredient(s) only from the list below, and/or insert brand name(s) of products containing the active ingredient(s) only from the list below, that, at the time of printing of this label, are registered for use pre-emergence in sugar beets: Ethofumesate; Nortron® SC herbicide)
  - Applications of this product in a tank mixture with Nortron SC herbicide may result in severe crop injury; refer to Norton SC product label for crop injury precautions.
- Post-Emergence: Application of Sharda Acetochlor 33% CS may be made in a tank mixture post-emergence to sugar beets with
  the following products to expand weed control spectrum or for control of emerged weeds at the time of application, however,
  severe crop injury may result: [Insert active ingredient(s) only from the list below, and/or insert brand name(s) of products
  containing the active ingredient(s) only from the list below, that, at the time of printing of this label, are registered for use post-

emergence in sugar beets: ethofumesate, desmedipham, clethodim, clopyralid, triflusulfuron methyl, Betamax®, Nortron® SC, Select®, Stinger®, UpBeet®]

Application of **Sharda Acetochlor 33% CS** may be made post-emergence to sugar beets in a tank mix with Roundup® Brand Agricultural Herbicides only when used on Roundup Ready® Sugar beets.

Application of **Sharda Acetochlor 33% CS** in tank mixture with other products, or to soils where other applications of soil applied herbicides have been made, may increase the risk of crop injury with this product.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, feed, or seed by storage or disposal.

**PESTICIDE STORAGE:** Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container, including rinsate, by application in accordance with label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by State or local governments or by industry. All disposal must be in accordance with applicable Federal, State and local regulations and procedures.

CONTAINER HANDLING [Less Than 5 Gallons]: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

CONTAINER HANDLING [Greater Than 5 Gallons]: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

CONTAINER HANDLING [For Bulk and Mini-Bulk Containers]: Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

SEED DISPOSAL: To dispose of out of date or otherwise unmarketable seed from plants which have been treated with this product, broadcast and lightly incorporate seed into field soils using disc or other suitable implement. Any resulting crop may be destroyed by chemical or mechanical means. Alternatively, seed may be destroyed by deep burial, incineration or landfill disposal.

#### CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Sharda USA LLC, MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.



Wagner Regulatory Associates, Inc. P.O. Box 640 7217 Lancaster Pike, Suite A Hockessin, Delaware 19707

#### Submitted Electronically

May 16, 2017

Document Processing Desk (REGFEE)
Attn: Reuben Baris, PM 25
Registration Division
U.S. Environmental Protection Agency
Office of Pesticide Programs (7505P)
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, Virginia 22202-4501

Subject: Sharda Acetochlor 33% CS; ABN: Arrest CS, EPA Company No. 83529 Application to register a new end-use product - (PRIA R300)

Dear Mr. Baris:

Wagner Regulatory Associates, Inc., as agent for Sharda USA LLC, is requesting registration of the above referenced product. In support of this request, the following documents and studies are being submitted electronically via the EPA CDX PSP portal.

- · Letter from Sharda USA LLC appointing Wagner Regulatory Associates, Inc. as its agent
- Application for Pesticide Registration (8570-1)
- Confidential Statement of Formula (8570-4)
- Certification with Respect to Citation of Data (8570-34)
- Data Matrix (8570-35), internal and public versions
- Data Transmittal Document
- Formulators Exemption (8570-27)
- Data as outlined in the transmittal document
- Draft label
- Certification with Respect to Label Integrity
- Receipt confirming payment of fee for PRIA R300 \$1,582.

Thank you in advance for your efforts in reviewing this submission. Please do not hesitate to contact me by email at <a href="mailto:anna@wagnerreg.com">anna@wagnerreg.com</a> or by phone at 302-510-0039 should you have any questions.

Respectfully submitted,

Anna Armstrong

Agent for Sharda USA LLC

Enclosures

#### **DATA TRANSMITTAL DOCUMENT**

| 1. | Name | and | Address | of | Submitter |
|----|------|-----|---------|----|-----------|
|----|------|-----|---------|----|-----------|

Sharda USA LLC c/o Wagner Regulatory Associates, Inc. PO Box 640 Hockessin, DE 19707

## Regulatory Action In Support Of Which This Package Is Submitted Application for New Registration Sharda Acetochlor 33% CS; ABN: Arrest CS 2.

#### Transmittal Date May 16, 2017 3.

#### 4. **List of Submitted Studies**

| 50278201 | Sharda Acetochlor 33% SC Product Identity and Composition, Description of Materials, Description of Formulation Process, Preliminary Analysis, Discussion of Impurities, and Certified Limits. OPPTS 830.1550, |
|----------|--|
| 002,0201 | 830.1600, 830.1650, 830.1670, 830.1700, 830.1750   |
| 50278202 | Acetochlor 33% CS. Physical-Chemical Properties and Accelerated Storage Study. OPPTS 830.6302; 6303; 6304; 6313; 6317; 6320; 7000; 7100; 7300; 7520; 1800  |
|          |  |
| 50278203 | Acetochlor 33% CS. Flash Point and Oxidizing Properties. OPPTS 830.6314 and 6315   |
|          | Sharda Acetochlor 33% CS Product Chemistry - Group B: Request for Waiver for Certain Physical/Chemical   |
| 50278204 | Properties Data. OPPTS 830.6313; 830.6316; 830.6319; 830.6321; 830.7050; 830.7200; 830.7220; 830.7370;   |
|          | 830.7520; 830.7550; 830.7560; 830.7570; 830.7840; 830.7860; 830.7950   |

| 830.7520; 830.7550; 830.7560; 830.7570; 830.784    | 40; 830.7860; 830.7950 |
|--|------------------------|
| Company Official:  Anna Armstrong Authorized Agent | Signature              |
| Company Name: Sharda USA LLC                       |                        |
| Company Contact:  Anna Armstrong                   | (302) 510-0039         |
| Authorized Agent                                   | Phone                  |

Name
Anna Armstrong
Title
Agent for Sharda USA LLC

Certification
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature

3. Title
Agent for Sharda USA LLC

4. Typed Name

Title
Agent for Sharda USA LLC

Total True, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or large true, accurate and complete. I acknowledge that any knowledge that any knowledge that any knowledge true true, accurate and complete. I acknowledge that any knowledge true true, accurate and compl

May 16, 2017

This is a reproduction of EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.

Anna Armstrong





### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION OFFICE OF PESTICIDE PROGRAMS REGISTRATION DIVISION (7505P)

#### BOCOMENT CONTAINS CONFIDENTIAL BUSINESS INFORMATION

DP BARCODE No.: <u>D442288</u>; FILE SYMBOL No.: <u>83529-IU</u>; PRODUCT NAME: <u>Sharda Acetochlor 33%CS ABN: Arrest CS</u>; DECISION No.: <u>529603</u>; PC Code(s): <u>121601</u>: ACTION CODE: <u>R300</u>; FOOD Use: <u>Yes</u>

DATE OUT: September 6, 2017

**SUBJECT**: End Use Product Chemistry Review

Product Name: Sharda Acetochlor 33% CS ABN: Arrest CS

FROM: Shyam Mathur, Ph. D

Chemistry Team Leader

Chemistry, Inerts & Toxicology Assessment Branch (CITAB) /RD (7505P)

TO: Emily Schmidt / Reuben Baris, RM 25; Herbicide Branch / RD (7505P)

#### INTRODUCTION:

The registrant, Sharda USA, LLC, has submitted an application for the registration of the new end use product Sharda Acetochlor 33% CS ABN: Arrest CS. The registrant has submitted a CSF for basic formulation (dated May 16, 2017) and the supporting product chemistry data with MRID Nos. 50278201 to 50278204. The registrant has claimed that the proposed product is substantially similar to the registered product with Reg. No. 524-591. CITAB has been asked to determine the acceptability of the proposed basic CSF, the supporting product chemistry data and also determine similarity to the cited product.

#### **SUMMARY OF FINDINGS:**

- 1. Name of Active Ingredient(s): Acetochlor (33.0%)
- 2. Has the registrant claimed substantial similarity to a registered product?

[X] Yes; [] No; [] NA; if yes give the registration number of the cited product EPA Reg. 524-591

- 3. All of the source materials of the active ingredient are derived from registered sources- [X] Yes [ ] No
- 4. All inert ingredients have been screened by CITAB (Inert group) and found to be approved for the proposed labeled uses: [X] Yes; [1] No

DP BARCODE No.: <u>D442288</u>; FILE SYMBOL No.: <u>83529-IU</u>; PRODUCT NAME: <u>Sharda Acetochlor 33%CS ABN: Arrest CS</u>; **DECISION No**.:<u>529603</u>; PC Code(s): <u>121601</u>: ACTION CODE: <u>R300</u>; FOOD Use: <u>Yes</u>

| 5.   | Confidential Statement of Formula(s): |  |  |  |  |  |  |
|--|---------------------------------------|--|--|--|--|--|--|
|  | [X]                                   | [X] Basic - Dated: 05-16-2017; Re-submitted - Dated:   |  |  |  |  |  |
|  | []/                                   | Alternate CSF - All Dated: ; Re-submitted alt CSF - Dated:   |  |  |  |  |  |
|  | Alte                                  | ernate CSF(s) complies with 40CFR§152.43: [ ] Yes; [ ] No; [X] NA  |  |  |  |  |  |
| 6.   | 6. Product label                      |  |  |  |  |  |  |
| <ul> <li>Ingredient statement: Nominal concentration of Al listed on CSF(s) concurs with product la (PR Notice 91-2).</li> <li>[X] Yes; [] No; if not, explain below:</li> </ul> |                                       |  |  |  |  |  |  |
|  |                                       | Is the sub statement in compliance with PR Notice 97-6 (inert ingredient vs other ingredients)? [X] Yes; [ ] No; if not, explain below:  |  |  |  |  |  |
|  |                                       | Metallic equivalent: [ ] Yes [X] NA Soluble arsenic: [ ] Yes [X] NA Isomeric ratios: [ ] Yes [X] NA Acid Equivalent: [ ] Yes [X] NA:   |  |  |  |  |  |
|  | b.                                    | Health related sub statements: Product contains?   |  |  |  |  |  |
| z  |                                       | Petroleum distillate at > 10%: [ ] Yes [X] No [ ] NA  Methanol at > 4%: [ ] Yes [X] No [ ] NA  Sodium nitrate/Sodium nitrite [ ] Yes [X] No [ ] NA                               |  |  |  |  |  |
|  | C.                                    | Physical chemical hazard statement: Product label requires a statement per 40 CFR §156.78 for: flammability, explosive potential or electric insulator breakdown? [] Yes; [X] No |  |  |  |  |  |
|  |                                       | Is the sub statement in compliance with PR Notice 98-6 (Total Release Fogger)? [] Yes; [] No; [X] NA; if not, explain below  |  |  |  |  |  |
|  | d.                                    | Label requires an additional Storage and Disposal statement:   |  |  |  |  |  |
|  |                                       | [ ] Yes; [X] No; if yes explain below:   |  |  |  |  |  |

z

#### 7. Group A: Product Chemistry Data submitted

CITAB's determination of the acceptability for the proposed product is listed in the tables below.

| Guideline<br>No. | Study Title  |                                | Data submitted |    | CITAB's<br>Assessment | MRID Nos.                                   |
|------------------|--|--------------------------------|----------------|----|-----------------------|---|
|                  |  |                                | Yes            | No | of Data               |   |
| 830.1550         | Product Ider   | Х                              |                | Α  | 50278201              |   |
| 830.1600         | Description of materials used to produce the product |                                | х              |    | A                     | 50278201                                    |
| 830.1650         | Description of formulation process                   |                                | Х              |    | A                     | 50278201                                    |
| 830.1670         | Discussion on the formation of impurities            |                                | х              |    | Α                     | 50278201                                    |
| 830.1700         | Preliminary analysis                                 |                                |                | Х  | NA                    |   |
|                  |  | Standard certified limits      | x              |    | Α                     |   |
|                  | Certified limits                                     | Proposed Limits                |                |    |                       |   |
| 830.1750         | (158.350)  | Justification for wider limits |                |    |                       | Basic CSF dated 05-16-2017                  |
|                  | Enforcement analytical method                        |                                |                |    |                       | 50278202<br>Study submitted<br>with storage |
| 830.1800         |  |                                | X              |    | A                     | stability (830.6317)                        |

A = Acceptance, N = Not Acceptable, G = Data Gap, W = Waiver Request, I = In Progress, NA = Not Applicable; U = Upgradeable.

#### 8. Group B: Product chemistry data submitted

| Guidelin<br>e No. | Study Title               | Value or Qualitative<br>Description  | CITAB's<br>Assessment<br>of Data | MRID Nos. |
|-------------------|---------------------------|--|----------------------------------|-----------|
| 830.6303          | Physical State            | Liquid   | А                                | 50278202  |
| 830.6315          | Flammability              | Non-Flammable;<br>Flash point > 100°C  | А                                | 50278203  |
| 830.6316          | Explodability             | Waiver request. Based on the flammability data, the TS is not potentially explosive  | A                                | 50278204  |
| 830.7000          | pΗ                        | 5.7 – 6.1 at 21.7°C to 22.2<br>(1% w/v)  | A                                | 50278202  |
| 830.7300          | Relative Density (units)  | 1.0556 (8.803 lbs/gal)<br>at 20°C  | Α                                | 50278202  |
| 830.7100          | Rotational Viscosity      | At 20 °C: 545.88 to 2027.57<br>cP<br>At 40 °C: 392.92 to 1559.67<br>cP   | A                                | 50278202  |
| 830.6317          | Storage stability         | Stable for 2 weeks at 54°C when stored in HDPE-COEX containers   | A                                | 50278202  |
| 830.6320          | Corrosion characteristics | No corrosion observed when stored in PE containers for 2 weeks at 54°C. Non-corrosive to Al, Fe & Zn. Corrosive to Cu.   | A                                | 50278202  |
|                   |                           | Compatible with water, Fe, Zn, ammonium dihydrogen phosphate (ADP), ammonium dichromate, & calcium nitrate (tetra hydrate). With ADP, the mixture becomes solid & with ammonium dichromate the mixture becomes darker in |                                  |           |
| 830.6314          | Oxidation/reduction       | color.   | А                                | 50278203  |

A = Acceptance, N = Not Acceptable, G = Data Gap, W = Waiver request, NA = Not applicable, I = In progress; U = Upgradeable; I = In progress

DP BARCODE No.: <u>D442288</u>; FILE SYMBOL No.: <u>83529-IU</u>; PRODUCT NAME: <u>Sharda Acetochlor 33%CS ABN: Arrest CS</u>; DECISION No.:<u>529603</u>; PC Code(s): <u>121601</u>: ACTION CODE: <u>R300</u>; FOOD Use: <u>Yes</u>

## <u>The registrant has submitted the waiver requests for the following guidelines</u> (MRID No. 50278204)

| Guideline No. | Title  | Rationale for Waiver or Additional Information for Reference Guideline  |
|---------------|--|---|
| 830,6313      | Stability to Normal and<br>Elevated Temperatures,<br>metals and ions | This product will not come into contact with metal containers or packaging. A storage stability and corrosion characteristics test was conducted at 54°C for two weeks and product was stable at test conditions. Acetochlor 33% CS was found to be non corrosive in aluminum, iron, polyethylene and zinc, but corrosive in copper.  Reference: MRID 50278202                          |
| 830.6316      | Explodability  | This product does not contain any ingredients that will self- ignite nor is it highly flammable. A flashpoint study was conducted and showed that the product is non-flammable and has a flashpoint of greater than 100°C. Therefore, it is requested that the requirement for this data be waived.  References: MRID 50278203 40CFR 158.310 Product chemistry data requirements table. |
| 830.6319      | Miscibility  | This and use product will not be diluted with petroleum solvent; therefore, these data are not required.  Reference: 40 CFR 158.310 Product chemistry data requirements table.  |
| 830.6321      | Dielectric breakdown<br>voltage                                      | This end use product does not have uses where the product would come into contact with electricity; therefore, it is requested that this requirement be waived.  Reference: 40 CFR 158.310 Product chemistry data requirements table.   |
| 830.7050      | UV/Visible Absorption  | This is an end-use product formulation: therefore, these data are not required.  Reference: 40 CFR 158.310 Product chemistry data requirements table.   |
| 830.7200      | Melting Point  | This is an end-use product formulation; therefore, these data are not required.  Reference: 40 CFR 158.310 Product chemistry data requirements table.   |

| 830.7220                         | Boiling Point   | This is an end-use product formulation; therefore, these data are not required. |
|----------------------------------|---|---|
|                                  |   | Reference: 40 CFR 158.310 Product chemistry data requirements table.            |
| 830.7370                         | Dissociation constant in water                                | This is an end-use product formulation; therefore, these data are not required. |
|                                  |   | Reference: 40 CFR 158.310 Product chemistry data requirements table.            |
| 830,7520                         | Particle size, fiber<br>diameter and particle<br>distribution | This is an end-use product formulation; therefore, these data are not required. |
|                                  |   | Reference: 40 CFR 158.310 Product chemistry data requirements table.            |
| 830.7550<br>830.7560<br>830.7570 | Octanol Water Partition<br>Coefficient                        | This is an end-use product formulation; therefore, these data are not required. |
|                                  |   | Reference: 40 CFR 158.310 Product chemistry data requirements table.            |
| 830.7840<br>830.7860             | Solubility in Water   | This is an end-use product formulation, therefore these data are not required.  |
|                                  |   | Reference: 40 CFR 158.310 Product chemistry data requirements table.            |
| 830.7840<br>830.7860             | Solubility in Organic<br>Solvents                             | This is an end-use product formulation; therefore, these data are not required. |
|                                  |   | Reference: 40 CFR 158.310 Product chemistry data requirements table.            |
| 830.7950                         | Vapor Pressure  | This is an end-use product formulation; therefore, these data are not required. |
|                                  |   | Reference: 40 CFR 158.310 Product chemistry data requirements table.            |

DP BARCODE No.: <u>D442288</u>; FILE SYMBOL No.: <u>83529-IU</u>; PRODUCT NAME: <u>Sharda Acetochlor 33%CS ABN: Arrest CS</u>; DECISION No.:<u>529603</u>; PC Code(s): <u>121601</u>: ACTION CODE: <u>R300</u>; FOOD Use: <u>Yes</u>

#### **CONCLUSIONS:**

CITAB has reviewed the product chemistry data submitted for the end-use product and has concluded that:

| A. | Substantial similarity to the cited product (Reg. No. 524-591) from Product chemistry view point  [] Similar  [X] Not similar, give reasons: The proposed & cited products differ significantly in chemical composition and physical chemical properties (pH proposed = 5.7; pH cited: 8.0).  [] Identical  [] Not identical  [] Not applicable |
|----|---|
| В. | Confidential Statement of formula   |
|    | 1. Basic CSF (dated: 05-16-2017)  [X] Acceptable  [ ] Not Acceptable:  [ ] Not Applicable   |
|    | 2. Alternate (dated: ) [ ] Acceptable [ ] Not Acceptable: [X] Not Applicable  |
| C. | Group A Product Chemistry Data  |
|    | [X] Acceptable  [] Acceptable with the exception of the guideline:  [] Not acceptable  [] Not required  [] Data cited   |
| D. | Group B Product chemistry data  |
|    | <ul> <li>[X] Acceptable</li> <li>[] Not acceptable</li> <li>[] Acceptable with the exception of the guidelines</li> <li>[] Not required</li> <li>[] Data cited</li> <li>[X] Waiver requests – [X] Acceptable; [] Not Acceptable, [] Not applicable</li> </ul>   |
| E. | Product Label/Draft Label: Recommendations – Yes [ ]: No [X]  |



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

#### Note to File

Date: September 26, 2017

Registration Number: 83529-84

**Decision Number:** 529603

RM Name: Emily Schmid

**Background**: Product chemistry review notes that this product is not similar to cited product

because pH is different. Inert flagged in Tox. Review.

**Decision**: Although the product chemistry review found that this product was not similar to the cited product, the data and CSF were found to be acceptable. Acute tox team found the product to be similar; however, an inert in the composition of 83529-84 was flagged and additional precautionary language added to label based on eye irritation.

Because the acute toxicity review concluded that the products are similar, we are able to move forward with registration of this product.



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M Street, S.W.

WASHINGTON, D.C. 20460

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|  | DATA MATR  | IX                                       |             |
|--|--|--|-------------|
| Date: May 16, 2017                         |  | EPA Reg No./ File Symbol: 83529-XX       | Page 1 of 2 |
| Applicant's/Registrant's Name and Address: | Sharda USA LLC   | Product:                                 |             |
| ngredient: Acetochlor                      | c/o Wagner Regulatory Associates Inc.<br>P.O. Box 640<br>Hockessin, DE 19707 | Sharda Acetochlor 33% CS; ABN: Arrest CS |             |

| Guideline Reference Number                          | Guideline Study Name   | MRID Number          | Submitter      | Status   | Note     |
|---|--|----------------------|----------------|----------|----------|
| PRODUCT SPECIFIC                                    |  |                      |                | <u> </u> |          |
| 830.1550, 830.1600, 830.1650,<br>830.1670, 830.1750 | Product Identity & Composition/ Description of Materials used to Produce the Product/Description of Formulation Process/Discussion of Formation and Toxicity of Impurities, Certified Limits | 50278201             | Sharda USA LLC | Own      |          |
| 830.1700  | Preliminary Analysis   | 50278201             | Sharda USA LLC | Own      |          |
| 830.1800  | Enforcement Analytical Method  | 50278202             | Sharda USA LLC | Own      |          |
| 830.6302  | Color  | 50278202             | Sharda USA LLC | Own      |          |
| 830.6303  | Physical State   | 50278202             | Sharda USA LLC | Own      |          |
| 830.6304  | Odor   | 50278202             | Sharda USA LLC | Own      |          |
| 830.6313  | Stability to Normal & Elevated Temperatures  | 50278202<br>50278204 | Sharda USA LLC | Own      |          |
| 830.6314  | Oxidation/Reduction  | 50278203             | Sharda USA LLC | Own      |          |
| 830.6315  | Flammability   | 50278203             | Sharda USA LLC | Own      |          |
| 830.6316  | Explodability  | 50278204             | Sharda USA LLC | Own      |          |
| 830.6317  | Storage Stability  | 50278202             | Sharda USA LLC | Own      |          |
| 830.6319  | Miscibility  | 50278204             | Sharda USA LLC | Own      |          |
| 830.6320  | Corrosion Characteristics  | 50278202             | Sharda USA LLC | Own      | <u> </u> |
| 830.6321  | Dielectric breakdown voltage   | 50278204             | Sharda USA LLC | Own      |          |
| 830.7000  | pH   | 50278202             | Sharda USA LLC | Own      |          |
| 830.7050  | UV/Visible Light Absorption  | 50278204             | Sharda USA LLC | Own      |          |
| 830.7100  | Viscosity  | 50278202             | Sharda USA LLC | Own      |          |
| 830.7200  | Melting Point  | 50278204             | Sharda USA LLC | Own      |          |
| 830.7220  | Boiling Point  | 50278204             | Sharda USA LLC | Own      |          |
| 830.7300  | Density/Relative Density   | 50278202             | Sharda USA LLC | Own      |          |
| 830.7370  | Dissociation Constant in Water   | 50278204             | Sharda USA LLC | Own      |          |

| Signature | Name and Title<br>Anna Armstrong, Agent | Date         |
|-----------|---|--------------|
| Manhaml   | Time Attributing, Agent                 | May 16, 2017 |



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 401 M Street, S.W.

WASHINGTON, D.C. 20460

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| Date: May 16, 2017                         |  | EPA Reg No./ File Symbol: 83529-XX       | Page 2 of 2 |
|--|--|--|-------------|
| Applicant's/Registrant's Name and Address: | Sharda USA LLC   | Product:                                 |             |
|  | c/o Wagner Regulatory Associates Inc.<br>P.O. Box 640<br>Hockessin, DE 19707 | Sharda Acetochlor 33% CS; ABN: Arrest CS |             |

| Guideline Study Name                                | MRID Number  | Submitter  | Status   | Note   |
|---|--|--|--|--|
| Particle Size, fiber length & diameter distribution | 50278204   | Sharda USA LLC   | Own  | _  |
| Partition Coefficient (n-Octanol/Water)             | 50278204   | Sharda USA LLC   | Own  |  |
| Water Solubility/Solubility in Organic Solvents     | 50278204   | Sharda USA LLC   | Own  |  |
| Vapor Pressure                                      | 50278204   | Sharda USA LLC   | Own  |  |
| Acute Oral Toxicity                                 | CITE ALL   | E.I. DuPont Nemours, Wilmington, DE  | Pay  |  |
|   |  | Monsanto Company, Washington, DC   | 1  |  |
|   |  | Gowan Comp, Yuma, AZ   | 1  |  |
|   |  |  |  |  |
|   |  | Drexel Chemical Company, Memphis, TN   |  | _  |
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|   | Particle Size, fiber length & diameter distribution Partition Coefficient (n-Octanol/Water) Water Solubility/Solubility in Organic Solvents Vapor Pressure | Particle Size, fiber length & diameter distribution 50278204  Partition Coefficient (n-Octanol/Water) 50278204  Water Solubility/Solubility in Organic Solvents 50278204  Vapor Pressure 50278204  Acute Oral Toxicity CITE ALL  Acute Dermal Toxicity  Acute Inhalation Toxicity  Primary Eye Irritation  Primary Dermal Irritation | Particle Size, fiber length & diameter distribution  Partition Coefficient (n-Octanol/Water)  Water Solubility/Solubility in Organic Solvents  Vapor Pressure  Acute Oral Toxicity Acute Dermal Toxicity Acute Inhalation Toxicity Primary Eye Irritation  Primary Dermal Irritation  Primary Dermal Irritation  Solvents  S | Particle Size, fiber length & diameter distribution  Partition Coefficient (n-Octanol/Water)  Water Solubility/Solubility in Organic Solvents  50278204  Sharda USA LLC  Own  Vapor Pressure  50278204  Sharda USA LLC  Own  Acute Oral Toxicity  Acute Dermal Toxicity  Acute Inhalation Toxicity  Primary Eye Irritation  Dermal Sensitization  CITE ALL  Adama Agan, Raleigh, NC  Drexel Chemical Company, Memphis, TN  Loveland Products Inc, Greeley, CO  Albaugh LLC, Valdosta, GA  Dow Agrosciences LLC, Indianapolis, IN  Makhteshim Agan of N.A., Raleigh, NC  Monsanto Company, Washington, DC  Spray Drift Task Force, Washington, DC  Outdoor Residential Exp. Task Force,  Washington, DC  Ag. Reentry Task Force, Washington, DC  FIFRA Endangered Species Task Force,  Lakewood, WA  Ag. Handler Exposure Task Force, Macon, MO  Generic Endangered Species Task Force, Gig |

Footnotes:

| Signature | Name and Title        | Date         |
|-----------|-----------------------|--------------|
| Manhams   | Anna Armstrong, Agent | May 16, 2017 |



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 1200 Pennsylvania Avenue, N.W. WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send

| comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, Collection Strategies Division (2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460. Do not send the completed form to this address.   |   |  |  |  |  |
|---|---|--|--|--|--|
| Certification with Respect to Citation of Data  |   |  |  |  |  |
| Applicant's/Registrant's Name, Address, and Telephone Number Sharda USA LLC, P.O. Box 640, Hockessin, DE 19707  EPA Registration Number/File Symbol 83529-XX  |   |  |  |  |  |
| Active Ingredient(s) and/or representative test compound(s) Acetochlor  | · · · · · · · · · · · · · · · · · · ·   |  |  |  |  |
| General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158)  Terrestrial food Crops  Product Name Sharda Acetochlor 33% CS; ABN: Arrest CS   |   |  |  |  |  |
| NOTE: If your product is a 100% repackaging of another purchased EPA-registers submit this form. You must submit the Formulator's Exemption Statement (EPA Formulator's Exemption Statement)  | ed product labeled fo<br>n 8570-27).  | or all the same uses on your label, you do not need to   |  |  |  |
| I am responding to a Data-Call-In Notice, and have included with this form a be used for this purpose).   | list of companies se  | ent offers of compensation (the Data Matrix form should  |  |  |  |
| SECTION I: METHOD OF DATA SUPP  | ORT (Check one m  | nethod only)   |  |  |  |
| I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).   | a list of companies sent offers of compensation (the Data Matrix form under the selective method), and have included with this form a |  |  |  |  |
| SECTION II: GENERAL   | OFFER TO PAY  |  |  |  |  |
| [Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]  I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.  |   |  |  |  |  |
| SECTION III: CERT   | IFICATION   |  |  |  |  |
| I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses. |   |  |  |  |  |
| I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.  |   |  |  |  |  |
| I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (I) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.   |   |  |  |  |  |
| I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.   |   |  |  |  |  |
| I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.   |   |  |  |  |  |
| Signature   | Date<br>05/16/2017  | Typed or Printed Name and Title<br>Anna Armstrong, Agent |  |  |  |

EPA Form 8570-34 (12-2003) Electronic and Paper versions available. Submit only Paper version.

\*Product ingredient source information may be entitled to confidential treatment\*

Form approved. OMB No. 2070-0060, 2070-00. \_\_070-0107, 2070-0122, 2070-0164.

**SEPA** 

# United States Environmental Protection Agency Washington, DC 20460

## Formulator's Exemption Statement

(40 CFR 152.85)

| Applicant's Name and Address           | EPA File Symbol/Registration Number                                    |
|--|--|
| Sharda USA LLC                         | 83529-XX   |
| c/o Wagner Regulatory Associates, Inc. | Product Name   |
| P.O. Box 640                           | Sharda Acetochlor 33% CS; ABN: Arrest CS                               |
| Hockessin, DE 19707                    | Date of Confidential Statement of Formula (EPA Form 8570-4) 05/16/2017 |

As an authorized representative of the applicant for registration of the product identified above, I certify that:

(1) This product contains the following active ingredient(s):

Acetochlor

- (2) Of these, each active ingredient listed in paragraph (4) is present solely as the result of the use of that active ingredient in the manufacturing, formulation or repackaging another product which contains that active ingredient which is registered under FIFRA Section 3, is purchased by us from another person and meets the requirements of 40 CFR section 158.50(e)(2) or (3).
- (3) Indicate by checking (A) or (B) below which paragraph applies:
- (A) An accurate Confidential Statement of Formula (EPA FORM 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).

OR

- (B) The Confidential Statement of Formula (CSF)(EPA Form 8570-4) referenced above and on file with the EPA is complete, current, an accurate and contains the information required on the current CSF.
- (4) The following active ingredients in this product qualify for the formulator's exemption.

| Source            |                       |                     |  |  |
|-------------------|-----------------------|---------------------|--|--|
| Active Ingredient | Product Name          | Registration Number |  |  |
| Acetochlor        |                       |                     |  |  |
|                   |                       |                     |  |  |
|                   |                       |                     |  |  |
|                   |                       |                     |  |  |
|                   |                       |                     |  |  |
|                   |                       |                     |  |  |
| ignature          | Name and Title        | Date                |  |  |
| Qualuaty          | Anna Armstrong, Agent | 05/16/2017          |  |  |

EPA Form 8570-27 (Rev. 06-2004)

Copy 1 – EPA Copy 2 - Applicant copy

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

## **SIMILARITY ACTION FOR 83529-IU**

Brand Balanda for

August 1, 2017

Subject: SHARDA ACETOCHLOR 33% CS ABN: ARREST CS

EPA File Symbol: 83529-IU

DP Barcode: 440887 Action Code: R300

PC Code: 121601 (Acetochlor: 33%)

From: Byron T. Backus, Ph.D., Toxicologist

CITAB

Registration Division (7505P)

Through: P.V. Shah, Ph.D., Branch Chief

CITAB

Registration Division (7505P)

To: Reuben Baris, RM 25

Herbicide Branch

Registration Division (7505P)

Applicant: SHARDA USA LLC

FORMULATION FROM LABEL:

 Active Ingredient(s):
 % by wt.

 121601 Acetochlor.
 33.0%

 Other Ingredients:
 67.0%

 TOTAL:
 100.0%

Contains 3.0 lbs./gal of 2-chloro-N-ethoxymethyl-N-(2-ethyl-6-methylphenyl) acetamide.

ACTION REQUESTED: "Is 83529-IU similar to 524-591?"

<u>BACKGROUND</u>: The material available to CITAB includes a CSF (dated May 16, 2017), a data matrix (dated May 16, 2017), and a label (proposed signal word: CAUTION). The registrant is citing EPA Reg. No. 524-591 (signal word CAUTION; label declaration of 33.0% acetochlor as sole active ingredient) as similar. According to the data matrix for 83529-IU the registrant is using cite-all to satisfy the acute toxicity data requirements.

#### **COMMENTS AND RECOMMENDATIONS:**

- 1. After a comparison of the CSF for 83529-IU with information regarding 524-591 in PRISM, CITAB concludes that 83529-IU is toxicologically similar to 524-591, except for eye irritation potential.
- 2. Based on the presence of one or more inerts, CITAB concludes that 83529-IU should be assigned to toxicity category III for eye irritation potential.
- 3. The current labeling for 524-591 includes toxicity category III precautionary statements ("Harmful if absorbed through skin or inhaled") for dermal and inhalation toxicity, and indicates it is a potential dermal sensitizer. It also has first aid statements addressing dermal and inhalation exposure. These (with assignment to toxicity category III for eye irritation) indicate that the following is the acute toxicity profile for 83529-IU:

| Acute oral LD <sub>50</sub> (rat)       | IV       | Current Label for 524-591                  |
|---|----------|--|
| Acute dermal LD <sub>50</sub> (rat)     | III      | Current Label for 524-591                  |
| Acute inhalation LC <sub>50</sub> (rat) | Ш        | Current Label for 524-591                  |
| Eye irritation (rabbit)                 | III      | Based on the inert composition of 83529-IU |
| Skin irritation (rabbit)                | IV       | Current Label for 524-591                  |
| Dermal sensitization                    | Positive | Current Label for 524-591                  |

4. From the acute toxicity profile given above, the following is the precautionary and first aid labeling for 83529-IU (as obtained from the Label Review System):

PRODUCT ID #: 083529-00084

PRODUCT NAME: SHARDA ACETOCHLOR 33% CS ABN: ARREST CS

**PRECAUTIONARY STATEMENTS** 

SIGNAL WORD: CAUTION

#### **Hazards to Humans and Domestic Animals:**

Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear long-sleeved shirt and long pants, socks, shoes, and waterproof gloves. Remove and wash contaminated clothing before reuse.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### First Aid:

#### If on skin:

- -Take off contaminated clothing.
- -Rinse skin immediately with plenty of water for 15-20 minutes.
- -Call a poison control center or doctor for treatment advice.

#### If inhaled:

- -Move the person to fresh air.
- -If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- -Call a poison control center or doctor for further treatment advice.

#### If in eyes:

- -Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- -Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- -Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-xxx-xxxx for emergency medical treatment information.

5. All acute toxicity data requirements for the registration of 83529-IU have been satisfied by citeall.

# E-SUBMISSION

# Memorandum

| Date:     | 6.1       | 2/17       | 7 <i>'</i>                          |            | . :     |
|-----------|-----------|------------|-------------------------------------|------------|---------|
| To:       | PM        | 25         | , Reg                               | gulatory I | √anager |
| From:     | Informati | on Servi   | ces Branc                           | h, ITRM    | D .     |
| indicatio | _         | UDs for    | ta submis<br>the enclos             |            | . •     |
| from th   | _         | ate befo   | l be appr<br>re the stu             | •          | -       |
|           |           | •          |                                     |            |         |
| •         |           | *          |                                     | ï          |         |
| •         | •         |            | •                                   |            |         |
| This is a | ☐ pa      | artially a | oted subm<br>ccepted su<br>bmission | ıbmissioı  | 1       |



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

June 01, 2017

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WAGNER REGULATORY ASSOCIATES, INC. SHARDA USA LLC 7217 LANCASTER PIKE, SUITE A PO.BOX: 640 HOCKESSIN, DE 19707

Report of Analysis for Compliance with PR Notice 11-03

Thank you for your submittal of 16-MAY-17. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 11-03. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

# 21-Day Screen Completed by Contractor

21-Day Expires on <u>6-6-17</u>

Jacket #<u>83529-IU</u> MRID#<u>502782</u>

Content Screen: Recommend to Pass Fai



11-3 Review: Pass/Fail/NA

Overall Status: Recommend to Pass Fail

Transfer This Jacket to:

MEREDITH LAWS

# PRIA 3 – 21 Day Content Screen Review Worksheet (EPA/OPP Use Only) September 2012

| Expe       | ts In-Processing Signature:  | 2-/7<br>ate     | Fee P         | aid: Y   | es <u>1</u> / |          |
|------------|--|-----------------|---------------|----------|---------------|----------|
| EPA F      | Reg. Number: 83529-IU EPA Receipt Date: 5-/  | 16-1            | 7             |          |               |          |
|            | Items for Review   | )               |               | Yes      | No            | N/A*     |
| 1          | Application Form (EPA Form 8570-1) signed & complete includ type   | ing pacl        | cage          | X        |               |          |
| 2          | Confidential Statement of Formula all boxes completed, form sides (EPA Form 8570-4)  | igned, a        | nd            | X        |               |          |
| . <b>2</b> | a) All <u>inerts</u> , including fragrances, approved for the proposed uses (see Footnote A)                                 | yes             | y.            |          |               |          |
| 3          | Certification with Respect to Citation of Data (EPA Form 8570 completed and signed (N/A if 100% repack)                      | -34)            |               | X        |               |          |
| 1          | Certificate and data matrix consistent   |                 |               |          |               |          |
|            | If applicant is relying on data that are compensable, is the offer to pay statement included. (see Footnote B)               | yes ×           | no            |          |               |          |
|            | If applicable, is there a letter of Authorization for exclusive use on   | ly              |               |          |               |          |
| 4          | Formulator's Exemption Statement (EPA Form 8570-27) comp signed (N/A if source is unregistered or applicant owns the technic |                 | d             | X        |               |          |
|            | Data Matrix (EPA Form 8570-35) both internal and external copi completed and signed (N/A if 100% repack)                     | es ( <u>PR </u> | <u>98-5</u> ) | X        |               |          |
| 5          | a) Selective Method (Fee category experts use)   | yes             | no            |          |               |          |
|            | b) Cite-All (Fee category experts use)   |                 |               |          |               |          |
|            | c) Applicant owns all data (Fee category experts use)  |                 |               |          |               |          |
| 6          | 5 Copies of <u>Label</u> ( <u>Electronic labels on CD</u> are encouraged and available)                                      | l guida:        | nce is        | $\times$ |               |          |
| 7          | Is the data package consistent with PR Notice 86-5   | ·               |               | X        |               |          |
| 8          | Notice of Filing included with petitions   |                 |               |          |               | $\times$ |

| 9                                     | If applicable for conventional applications, reduced risk rationale  |
|---------------------------------------|--|
|                                       | Required Data and/or data waivers. See Footnote C.   |
|                                       | a) List study (or studies) not included with application   |
| 10                                    |  |
|                                       |  |
|                                       |  |
|                                       | Day Monda har (Dag) or Gall  |
| Comr                                  | nents:  Documentation (Pass) or Fail  -All Required Fams Compute   |
| )<br> <br>                            |  |
|                                       | Inerts, Pass or Fail) Inert not found -Supmitter contacted 611 -Response not received in time -Inerts Not Approved |
| -<br>-                                |  |
|                                       | 1RN 11-63: Pary or fail<br>-MRID: 502782   |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | GRAM -   |
| 4                                     | Overall Status: Pars or Earl   |



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

ANNA ARMSTRONG
WAGNER REGULATORY ASSOCIATES, INC.
AGENT FOR SHARDA USA LLC
7217 LANCASTER PIKE, SUITE A
P.O. BOX 640
HOCKESSIN, DELAWARE 19707

RE: Application for Registration dated: 16-MAY-2017

Date Fee Payment: 16-MAY-2017

Product Name: SHARDA ACETOCHLOR 33% CS ABN: ARREST CS

EPA Registration Number: 83529-IU

Decision Number: D-529603

## Dear Registrant:

The Agency has completed its initial contents screen of your application pursuant to Section 33(f)(4)(B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended the Pesticide Registration Improvement Renewal Act. The Agency has determined that your application did not pass the initial contents screen and therefore must be rejected.

Specifically, the following items were missing or improperly formatted: An Inert ingredient was not found.

In addition, in our attempts to clarify the above issue you failed to provide corrections in a timely manner. You were contacted by an Agency contractor via e-mail on June 01, 2017.

Furthermore, pursuant to FIFRA Section 33(b)(2)(G) the Agency must retain 25% of the registration service fee. Any future submissions to the Agency will be considered a new application and subject to the full registration service fee and another initial contents screen of all necessary fees, forms, data, and draft labeling.

Sincerely,

XXXXXXXX, Director
Office of Pesticide Programs

### Varner, Stephanie

From:

Varner, Stephanie

Sent:

Friday, June 02, 2017 4:00 PM

To:

'anna@wagnerreg.com'

Subject:

RE: Submission to EPA; SHARDA ACETOCHLOR 33% CS ABN: ARREST CS (EPA Reg. No.

83529-IU)

Hello Ms. Armstrong,

I'm required to send this application up to the PM today. Any information about this inert issue should be sent directly to them.

Thanks! Stephanie

From: Varner, Stephanie

Sent: Thursday, June 01, 2017 4:23 PM

To: 'anna@wagnerreg.com' <anna@wagnerreg.com>

Subject: Submission to EPA: SHARDA ACETOCHLOR 33% CS ABN: ARREST CS (EPA Reg. No. 83529-IU)

Dear Ms. Armstrong,

My name is Stephanie Varner, and I am a contractor with the EPA. I am contacting you in regards to your submissions in support of the product SHARDA ACETOCHLOR 33% CS ABN: ARREST CS (EPA Reg. No. 83529-IU). We have found a deficiency with the submissions that will need to be addressed:

1. There was an issue with the submitted CSF. Please see the attached Inert Clearance Form for further explanation.

Thanks!

Stephanie Varner

Contractor, US EPA 2777 S. Crystral Drive, S-4813 Arlington, VA 22202 (703) 347-0240 Email: varner.stephanie@epa.gov



100% identical (repack): <u>YES or NO (circle one)</u> {If **yes**, it's a 100% repack - then product chemistry, acute toxicity and efficacy data are <u>not</u> required}

Data on Group A and B must be submitted - Group A and B can <u>not</u> be cited.

| Guideline | Group A: Product Chemistry Data                      | Data submitted |    |
|-----------|--|----------------|----|
| No        | Study Title  | Yes            | No |
| 830.1550  | Product Identity & Composition                       | X              |    |
| 830.1600  | Description of materials used to produce the product | X              |    |
| 830.1650  | Description of formulation process                   | Χ              |    |
| 830.1670  | Discussion on the formation of impurities            | Х              |    |
| 830.1700  | Preliminary analysis                                 | X              |    |
| 830.1750  | Certified limits (158.345)                           | Χ              |    |
| 830.1800  | Enforcement analytical method                        | X              |    |

| Guideline | uideline Group B: Product Chemistry Data       |     | Data<br>submitted |  |
|-----------|--|-----|-------------------|--|
| No.       | Study Title                                    | Yes | No                |  |
| 830.6302  | Color  | Х   |                   |  |
| 830.6303  | Physical State                                 | X   |                   |  |
| 830.6304  | Odor   | X   |                   |  |
| 830.6314  | Oxidation/Reduction (Chemical incompatibility) | X   |                   |  |
| 830.6315  | Flammability                                   | Х   |                   |  |
| 830.6316  | Explodability                                  | X   |                   |  |
| 830.6317  | Storage stability                              | x   |                   |  |
| 830.6319  | Miscibility                                    | X   |                   |  |
| 830.6320  | Corrosion Characteristics                      | X   |                   |  |
| 830.6321  | Dielectric Breakdown voltage                   | x   |                   |  |
| 830.7000  | рН   | X   |                   |  |
| 830.7100  | Viscosity                                      | х   |                   |  |
| 830.7300  | Density  | X   |                   |  |

## R 300 and 301

New products must provide a bridging rationale document. The bridging document directs OPP to use a currently registered set of 6 acute toxicity data and label; instead of submitting product specific data.

| Guideline | Acute toxicity (6 pack) | Ci  | ed  |
|-----------|-------------------------|-----|-----|
| No.       | Study Title             | Yes | No_ |
| 870.1100  | Acute Oral (LD50)       | X   |     |
| 870.1200  | Acute Dermal (LD50)     | X   |     |
| 870.1300  | Acute Inhalation (LC50) | X   |     |
| 870.2400  | Acute Eye Irritation    | X   |     |
| 870.2500  | Acute Dermal Irritation | X   |     |
| 870.2600  | Dermal Sensitization    | x   |     |

Efficacy – which guideline depends on the proposed label use and they must cite the data to be used for the bridging rationale.

| Guideline | ·   | Cit      | ed       |              |
|-----------|---|----------|----------|--------------|
| No.       | Efficacy Study Titles                                       | Yes      | No       | Comments     |
| 810.3100  | Soil Treatments for Imported Fire Ants                      |          |          | N/A          |
| 810.3200  | Livestock, Poultry, Fur and Wool-Bearing Animal Treatments  |          |          | N/A          |
|           | Treatments to Control Pests of Humans and                   |          | _        |              |
| 810.3300  | Pets  |          | <u> </u> | N/A          |
| 810.3400  | Mosquito, Black Fly, and Biting Midge (Sand Fly) Treatments |          |          | N/A          |
| 810.3500  | Premises Treatments   |          | <u> </u> | N/A          |
| 810.3600  | Structural Treatments                                       |          |          | N/A          |
|           | Methods for Efficacy Testing of Termite                     |          |          |              |
| 810.3800  | Baits   | <u> </u> | <u> </u> | <u>  N/A</u> |



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

May 18, 2017

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

OPP Decision Number: D-529603

EPA File Symbol or Registration Number: 83529-IU

Product Name: Sharda Acetochlor 33% CS ABN: Arrest CS

EPA Receipt Date: 16-May-2017 EPA Company Number: 83529

Company Name: SHARDA USA LLC

MS. ANNA ARMSTRONG WAGNER REGULATORY ASSOCIATES, INC. SHARDA USA LLC PO Box 640 HOCKESSIN, DE 19707-

SUBJECT: Receipt of Registration Application Subject to Registration Service Fee

### Dear Registrant:

The Office of Pesticide Programs has received your application and certification of payment. If you submitted data with this application, the results of the PRN-2011-3 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R300

NEW PRODUCT; OR SIMILAR COMBINATION PRODUCT (ALREADY REGISTERED) TO AN IDENTICAL OR SUBSTANTIALLY SIMILAR IN COMPOSITION AND USE TO A REGISTERED PRODUCT; REGISTERED SOURCE OF ACTIVE INGREDIENT; NO DATA REVIEW ON ACUTE TOXICITY, EFFICACY OR CRP - ONLY PRODUCT CHEMISTRY DATA; CITE-ALL DATA CITATION, OR SELECTIVE DATA CITATION WHERE APPLICANT OWNS ALL REQUIRED DATA, OR APPLICANT SUBMITS SPECIFIC AUTHORIZATION LETTER FROM DATA OWNER; CATEGORY ALSO INCLUDES 100% RE-PACKAGE OF REGISTERED END-USE OR MANUFACTURING-USE PRODUCT THAT REQUIRES NO DATA SUBMISSION NOR DATA MATRIX;

No additional payment is due at this time.

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 347-0510.

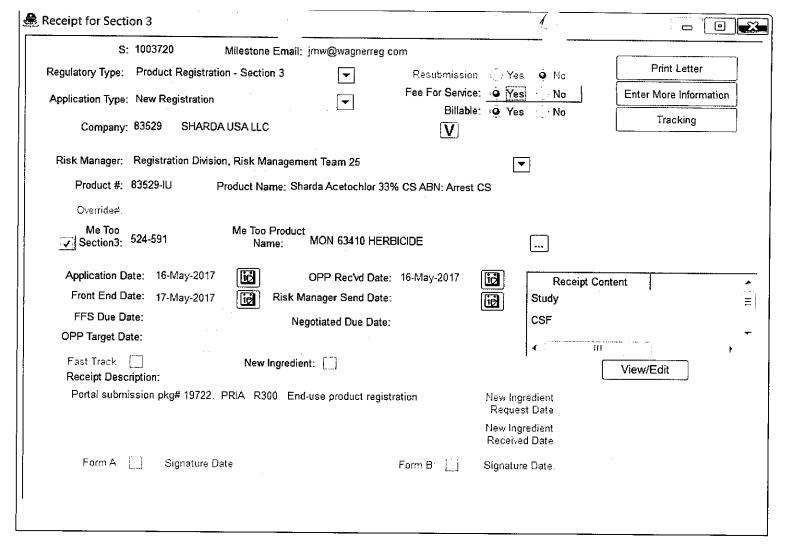
Sincerely,

Front End Processing Staff

Information Technology & Resources Management Division

# Fee for Service {1003720Ç~

| This package includes the following  | for Division                     |  |  |
|--|----------------------------------|--|--|
| <ul> <li>New Registration</li> <li>Amendment</li> <li>Studies? □ Fee Waiver?</li> <li>volpay % Reduction:</li> </ul> | ○ AD ○ BPPD ○ RD  Risk Mgr. 25   |  |  |
| Receipt No. S-<br>EPA File Symbol/Reg. No.<br>Pin-Punch Date:  | 1003720<br>83529-IU<br>5/16/2017 |  |  |
| This item is NOT subject t   | o FFS action.                    |  |  |
| Action Code:   | Parent/Child Decisions:          |  |  |
| Requested: R300  Granted: R300   |                                  |  |  |
| Granted: R300 Amount Due: \$ 1582  |                                  |  |  |
| ☐ Inert Cleared for Intended Use   | Uncleared Inert in Product       |  |  |
| Reviewer: LPahel   | Date: 5/18/17_                   |  |  |
| Remarks:   |                                  |  |  |
| Sim clinic   |                                  |  |  |



From: To:

notification@pay.gov

Subject:

Anna Armstrong

Pay.gov Payment Confirmation: PRIA Service Fees

Date: Tuesday, May 16, 2017 4:19:06 PM

Your payment has been submitted to Pay.gov and the details are below. If you have any questions regarding this payment, please contact Michael Yanchulis at (703) 347-0237 or yanchulis.michael@epa.gov.

Application Name: PRIA Service Fees Pay.gov Tracking ID: 262G8CPP Agency Tracking ID: 75246105793

Transaction Type: Sale

Transaction Date: 05/16/2017 04:19:01 PM EDT

Account Holder Name: Cheryl R. Wagner

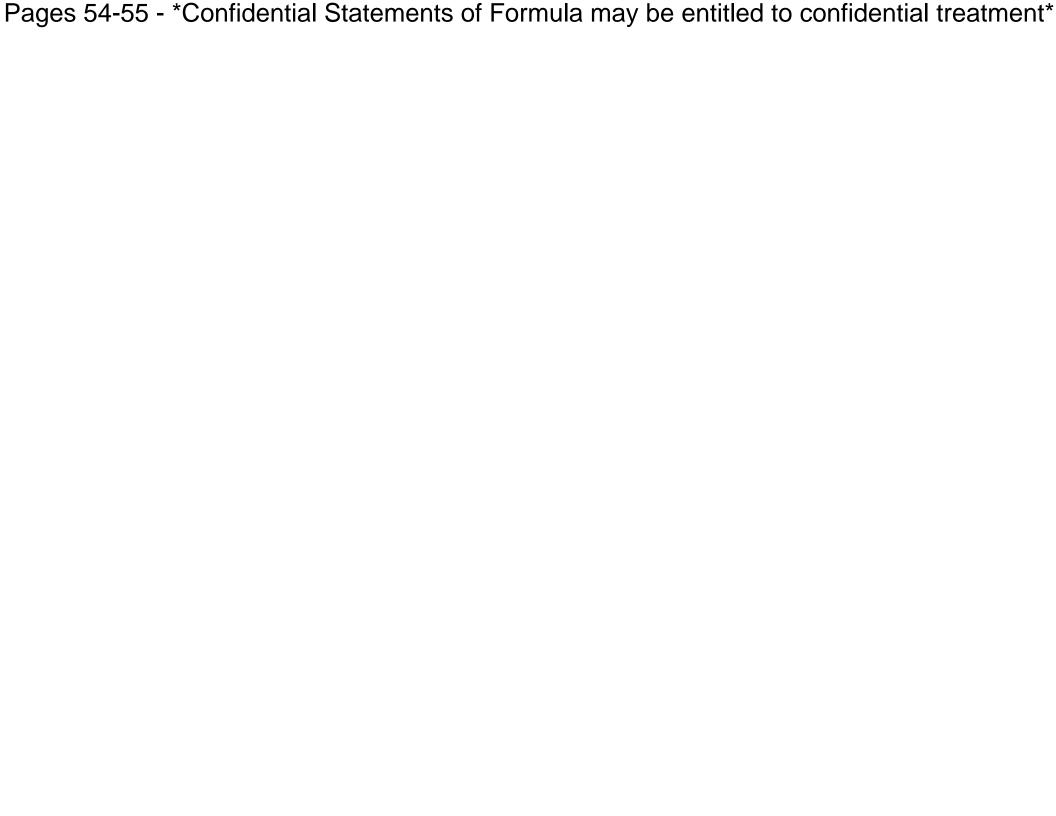
Transaction Amount: \$1,582.00 Card Type: AmericanExpress Card Number: \*\*\*\*\*\*\*\*\*2008

Registration Number:

Company Name: Sharda USA LLC

Company Number: 83529 Action Code: R300

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.



## **INERT CLEARANCE STATUS FORM**

| Reviewer Name: Stephanie  | Varner               |  | Reque                | est Date: Jun 1, 2017   |
|---|----------------------|--|----------------------|---|
| Kel: 703-347-0240   | ISB                  | CUBE: S-4813   | MAII                 | CODE:   |
| OMMENTS:  |                      | _  |                      |   |
| Information could not be received                                       | d by the deadline. I | nerts not approved.                                    |                      |   |
|   |                      |  |                      |   |
|   |                      |  |                      |   |
|   | <u></u>              |  |                      |   |
| STICIDE PRODUCT INFORM  | ATION:               |  |                      |   |
| Receipt Number: 1003720   |                      | Date on CSF: May 16                                    | , 2017               | Food-Use Pesticide: [X] Yes []No  |
| EPA Reg. No/File Symbol: 83529  | ₹IU                  | Formulation:   |                      |   |
| Product Name: SHARDA ACETO<br>ABN: ARREST CS                            | OCHLOR 33% CS        |  |                      |   |
| CIDED TEATE INDODUCE TROOP  |                      |  | -                    | 1   |
| GREDIENT INFORMATION:   |                      |  |                      |   |
| radions No. 1   |                      |  |                      | Tolerance Exemption(s)1   |
| redient No.1  |                      |  | 910                  | 920 930 940 950 960   |
| m. Name;  |                      |  |                      |   |
| de Name:  |                      |  |                      |   |
| S Reg. No.:   |                      |  |                      |   |
| Comments: full compositional information composition (100% composition) | including the manu   | Agency database. Please paracturer, constituent names, | ovide a n<br>CAS nur | nanufacture letter (with letterhead) providenders, and weight/weight percentage |
| composition (10070 composition  | <u></u>              | $\overline{}$  |                      |   |
|   |                      |  |                      | ,   |
| wer Name: Stephanie Varner  |                      |  |                      | Review Date: 6/1/17   |
| •   |                      |  |                      | Action Buttle Gigit   |
|   |                      |  |                      |   |
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|   |                      |  |                      | <b>\</b>  |
|   |                      |  |                      |   |
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|   |                      |  |                      |   |
|   |                      |  |                      |   |

40 <u>CFR</u> 180.910: Inert ingredients used pre- and post-harvest; 40 <u>CFR</u> 180.920: Inert ingredients used pre-harvest; 40 <u>CFR</u> 180.930: Inert ingredients applied to animals; 40 <u>CFR</u> 180.940: Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations; 40 <u>CFR</u> 180.950: Tolerance exemptions for minimal risk active and inert ingredients; and 40 <u>CFR</u> 180.960: Polymers.

**Inert Front Office Form 3**